

TA-DL100

SERVICE MANUAL

US Model
Canadian Model



SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 8 ohm loads both channels driven, from 20 – 20,000 Hz; rated 40 watts per channel minimum RMS power, with no more than 0.1% total harmonic distortion from 250 milliwatts to rated output.

Converter section

D/A converter sampling frequency 44.1 kHz
D/A conversion 8 fs 16 bit

General

Power output 40 W + 40 W
(8 ohms 20 Hz – 20 kHz)
Total harmonic distortion Less than 0.08%
Residual noise Less than –50 dBs
(8 ohms, network A)
Tone controls Bass: ± 8 dB (100 Hz)
Treble: ± 8 dB (10 kHz)
Sensitivity (TV/AUX) 150 mV
Impedance (TV/AUX) 50 kilohms
Power requirements 120 V AC, 60 Hz
Power consumption 105 watts
Dimensions 430 × 110 × 265 mm
(17 × 4 3/8 × 10 1/2 in.)
Weight 5.2 kg (11 lb 8 oz)

Supplied Accessories

F-type connector (2)
Mini DIN cable (male/male) (1) (5 m/16 ft. 3 in.)

Accessories Not Supplied

Intelligent remote commander RM-P1
Wireless remote control receiver RMR-3030K
Mini-DIN 6-pin cable (male/male) RK-MD3035 (5 m),
RK-MD3030 (10 m)
Connector wall unit (coax/coax) PC-3030
(DIN/DIN)

Design and specifications subject to change without notice.



DIGITAL LINK™ DECODER AMPLIFIER
SONY®

SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

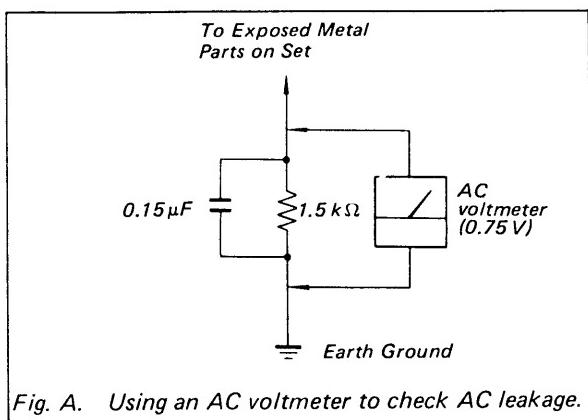


Fig. A. Using an AC voltmeter to check AC leakage.

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SECTION 1 GENERAL

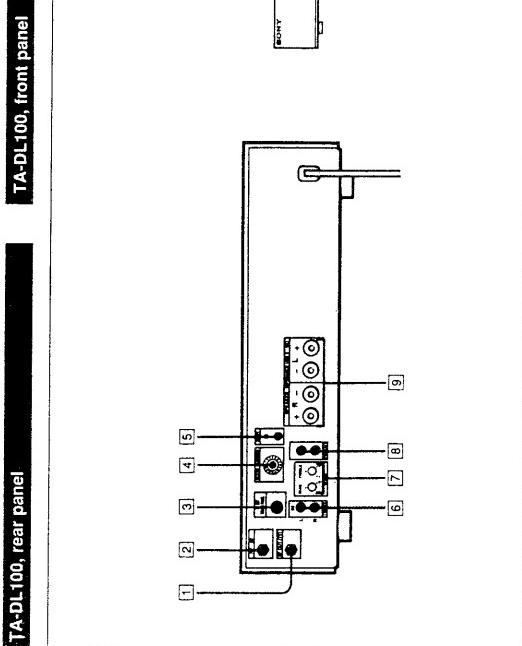
This section is extracted from instruction manual.

Digital Link™ Decoder Amplifier, TA-DL100

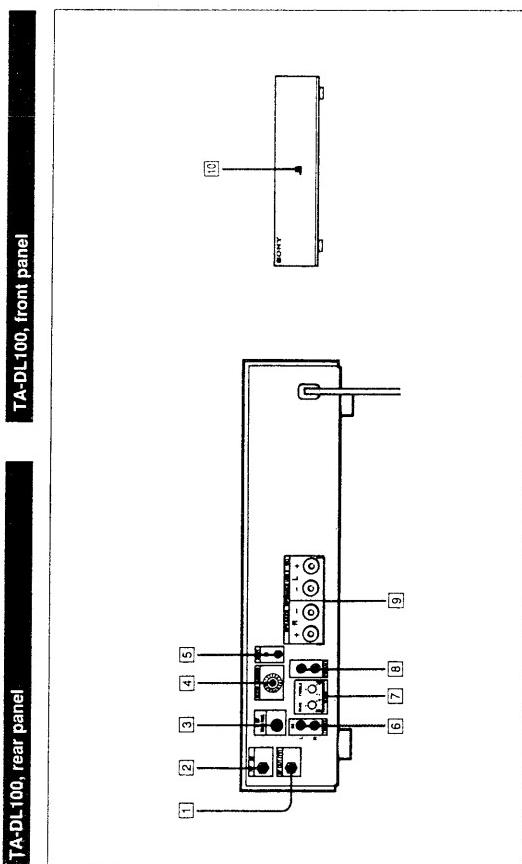
Parts Identification

Optional Connection

TA-DL100, rear panel

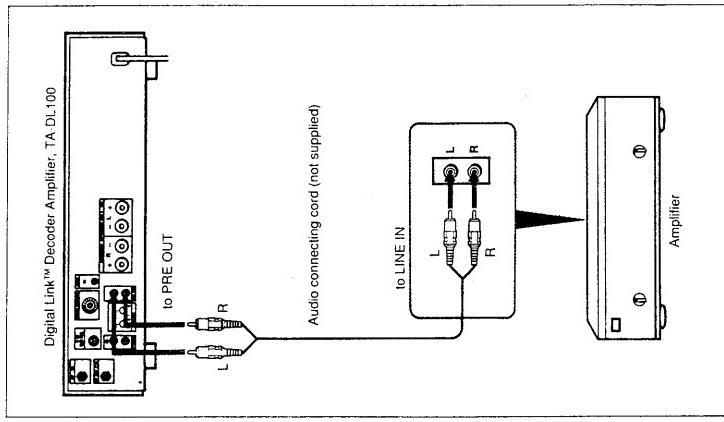


TA-DL100, front panel



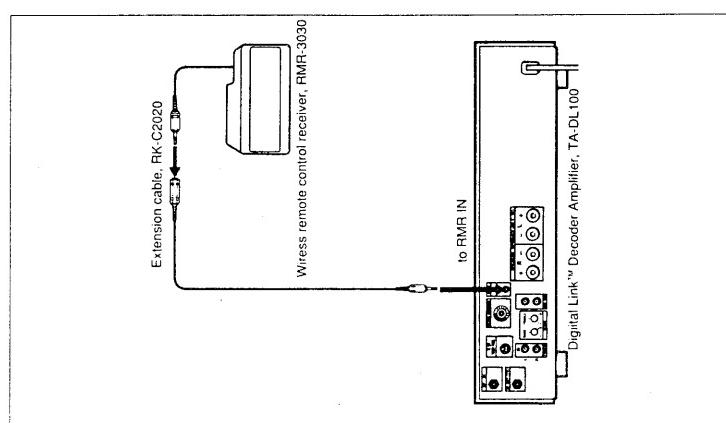
To Connect with Another Amplifier

You can connect this amplifier with another power amplifier to supply more power or signal processing. The diagram below shows how to connect another amplifier.



To Connect with a Wireless Remote Control Receiver

By connecting this digital link room kit with a wireless remote control receiver (RMR-3030K, not supplied), you can operate the system with a remote commander even if you have installed the digital link touch panel out of sight or in such a way as to be hidden from view. The diagram below shows how to connect the remote control receiver with the amplifier.



Overview of the Digital Signal Transfer™ (DST) System

Understanding the Digital Signal Transfer™ (DST) System

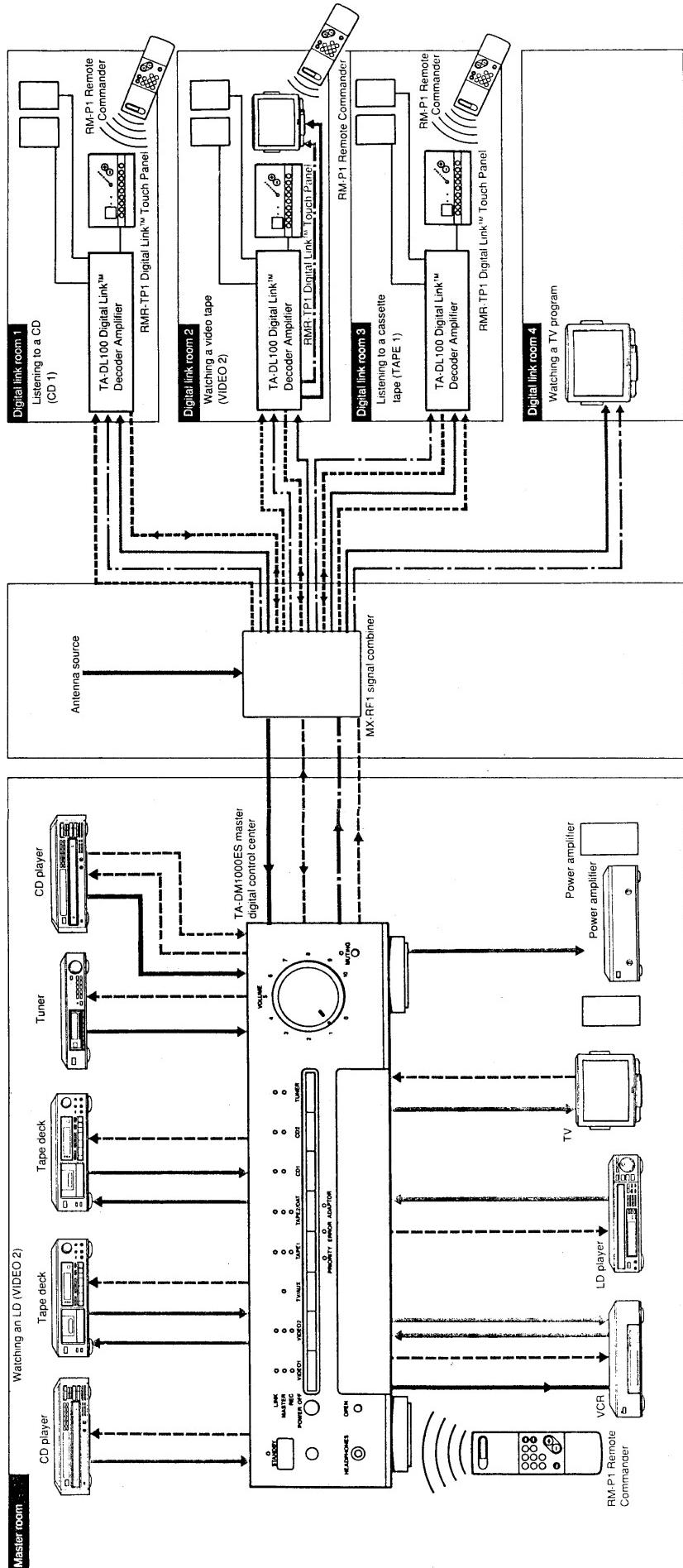
The DST transmits up to 3 digital audio signals, 1 analog audio/video signal and remote control signals through a 75-ohm coaxial cable. This system consists of the following equipment:

- Master digital control center: transmits audio, video and remote control signals.
- Digital Link™ Decoder Amplifier: decodes audio and remote control signals transmitted from the master digital control center and transmits a remote control signal.

Antenna source signal
 Remote control signal
 Analog video and audio signals
 Digital audio signal
 RF signal

Transmitting audio signals digitally assures high quality sound, without experiencing the type of degradation, distortion or signal loss associated with conventional hardware systems.
 The following configuration shows the signal transmission in the DST system.

* 75-ohm coaxial cable is a common shielded antenna wire and used as medium carrier.



SECTION 2

MICROCOMPUTER SPECIFICATIONS

IC701 M50951-112SP

Pin No.	Pin Name	I/O	Description
1	SEL	O	[H] : AUX, TV INPUT SELECT [L] : DAC OUTPUT SIGNAL SELECT
2	ATT20	O	[H] : 20dB MUTE [L] : MUTE CANCEL
3	TXD	O	Outputting the serial signal to RMR-TP1.
4	RXD	I	Inputting the serial signal from RMR-TP1.
5	TOPT	I	SERIAL DATA write REQ signal sent to CXD2902.
6	SIRCS	I	Input the SIRCS signal,
7	CLK2	O	Outputting the data transfer CLK for writing in the CXD2902.
8	SOUT2	O	Outputting the serial data writing in the CXD2902.
9	P. D.	I	Pull Down
10	RES	I	Inputting the power ramp up signal. [H] : AC ON [L] : AC OFF
11	CLK1	O	Outputting the CLK for writing from CXD2902.
12	P. D.	I	Pull Down
13	SIN1	I	Inputting the serial data from CXD2902,
14	ERR	I	Inputting the ERR signal from CXD2902.
15	PSW	I	Pull Up. Inputting the power SW. (Not used)
16	GFS	I	When set for "H" for more than 20msec continuously, muting is set. When switched to "L", muting is canceled.
17	EMPH	I	Input the emphasis.
18	REQ	I	Inputting the 1-byte data transfer REQ to CXD2902 is input.
19	TOPR	I	Inputting the serial data read REQ from CXD2902.
20	CNVss	I	GND
21	RESET	I	Input the MICON RESET. [L] : REST [H] : CANCEL
22	Xin	I	Input the SYSTEM CLOCK (8MHz)
23	Xout	O	Output the SYSTEM CLOCK.
24	Xcin	I	Pull Down
25	Xcout	◎ *	Not connect
26	Vss	I	GND
27	φ	◎	TIMING OUTPUT (Not used)
28	ROOM3	I	Inputting the room number.
29	ROOM2	I	Inputting the room number.
30	ROOM1	I	Inputting the room number.
31	ROOM0	I	Inputting the room number.
32	Vp	I	GND
33	MUTE	O	MUTING SIGNL. [H] : ON [L] : OFF
34	XLT	O	Serial set signal.
35	CLK	O	Serial set signal.
36	DATA	O	Serial set signal.

Pin No.	Pin Name	I/O	Description
37	NC	◎	Not used.
38	LATCH	O	Serial set signal.
39	SHIFT	O	Serial set signal.
40	ATT	O	Serial set signal.
41	NC	O	Not used.
42	SLED	O	Outputting the SIRCS received LED display.
43	NC	◎	Not used.
44	NC	◎	Not used.
45	XRST	O	Signal processor IC. RESET output. [H] : RESET CANCEL [L] : RESET
46	CE	O	Serial set signal.
47	CLKV	O	Serial set signal.
48	DT	O	Serial set signal.
49	PSK2	O	Channel select signal.
50	PSK1	O	Channel select signal.
51	RY	O	Power relay ON/OFF. [H] : ON [L] : OFF
52	Vcc	I	+5V Input

IC702 CXD-2902

Pin No.	Pin Name	I/O	Description
1	TDMI	I	Must be connected with the TDMG output (2 pin). This terminal sets SDAT output (64 bits) to "active" only at each room no. timing.
2	TDMG	O	Switches to "L" (active) for 1/16 of 100msec. only at the timing assigned to each room no.
3	EDAT	I	Switches to "active" only when SP (37 pin) is set for "L". As this terminal is not in use during normal operation, it should be fixed to "L" or "H". When NR is input to this terminal with SP (37 pin) set for "H", the NR is bi-phase modulated. (Input timing must be synchronized with clocks for BCK1 (10 pin) and BCK2 (7 pin).)
4	B1DT	O	Not used.
5	SYS1	O	R1 output of the read counter for the RAM. This terminal is not normally used. (But used for monitor.)
6	PBK2	O	2BCK output among clocks reproduced from the bi-phased data which is input from BIPH (60 pin). This terminal is not normally used. (But used for monitor.)
7	BCK2	I	Must be connected with PBK2 (6 pin) for the reproduction clock for creating the W pulse for the RAM.
8	SYC0	O	Outputs the sync pattern for bi-phase remodulation. But the sync is not used as it is output.
9	PBCK	O	Outputs reproduction clock BCK which was remodulated from the data input from BIPH (60 pin).
10	BCK1	I	Normally, this is connected with PBCK (9 pin). Generates the basic CLK for data read and write. BCK  Phase relationship between the data and BCK.
11	BCK0	O	4BCK which is 4-times the reproduction CLK is remodulated with bi-phase. 40.96kHz. Normally not in use.
12	BCK3	O	1/16×1/2 of 10.48576MHz of master. 32BCK=327.68kHz. Normally not in use.
13	WIN	I	Used for inputting W pulse for the built-in RAM. Switches to the input enable state only when SP (37 pin) is set for "H". This should be set for either "L" or "H" during normal use.
14	T1	I	Set for "L" during normal use. This enables to skip the division ratio of the master by 1/16 unit. This is mainly used for LSI test.
15	T2		
16	GND		
17	MTST	I	Set for "L" during normal use. When this is switched to "L", the RAM (1×1k×2) can be used as (4×256×2). This is mainly used for LSI test.
18	XI	I	Crystal oscillation pin. Normally oscillates at 10.48576MHz, 1MΩ, 22PF×2.
19	XO	O	
20	S102	O	Indicates the SYNC position for the top 4 bits of a 1024 bit unit. Normally used for CRC PR. Same as above. (Both E/D is normally connected with SYNC (21 pin). 1024×1.
21	SYNC	I	Indicates the top of 1024×1 block. Normally connects with 20 pin (S102).

Pin No.	Pin Name	I/O	Description
22	CRC1	O	Outputs clocks which latch errors in the 64×16 blocks. Normally connects with ERCK (25 pin).
23	ERCK	I	ERCK(23 pin)accept input independently from external devices only when SP(37 pin) is set for "H". This terminal is connected with CRC1 during normal use.
24	CLR9	O	
25	CL11		
26	D0RA	I	Connect to the select SW (HEX) of the corresponding room no. Normally pulled up with 100k Ω. The input is inverted and then decoded. 26 pin is assigned for the LSB side.
27	D1RB		
28	D2RC		
29	RD		
30	ED	I	Set for "L" during encoding and set to "H" during decoding. (mode switching.)
31	LOAD	I	Test terminal. Fixed to "H" during normal use.
32	Vcc		Power terminal (+5V).
33	EX	I	Expansion terminal and fixed to "L" during normal operation.
34	MS1	I	Expansion terminal and fixed to "L" during normal operation.
35	CWEE	O	Monitor terminal for testing. Open during normal operation.
36	SDIN	I	Test terminal. Fixed to "L" during normal operation.
37	SP	I	Test terminal. Fixed to "L" during normal operation.
38	ABSL	O	Monitor terminal for testing. Open during normal operation. Outputs 100Hz signal.
39	RESET	I	Input the RESET signal for reading the built-in RAM. Normally this terminal is connected with 40 pin.
40	CLERW	O	Output one-cycle signal for writing the built-in RAM. Normally this terminal is connected with 39 pin. Can be used as timing signal for reception microprocessor.
41	CLERE	O	Must be "open" as it is not in use for normal operation.
42	CLR	I	Must be connected with a 43 pin connector during normal use.
43	SYC1	O	Outputs SYNC. Normally connects with 42 pin connector.
44	ERR	O	Error detection of the reception data. Switches to "H" when an error is detected. This is normally connected with the microprocessor.
45	MRCK	I	
46	D	I	Input for the built-in CRC checker. It is normally connected with 47 pin.
47	DOUT	O	Output for the built-in RAM. It is normally a 46 pin connection. Transmits the output to the reception microprocessor.
48	GND	I	GND terminal.
49	SLOE	O	Normally not in use, must be "open".
50	DIN	I	Input 4 bit data for the PBDT which has been released from bi-phase sent from RF. (Input for the built-in RAM terminal)
51	PBDT	O	Used to remodulate and output the bi-phase data.
52	CWEQ	O	Normally not in use and set for "open".
53	SUBS	O	Normally not in use and set for "open".
54	REQ	O	Outputs the signal which indicates separation of 8 bytes to the transmission microprocessor. It is connected with the microprocessor.
55	SLO	O	Normally not in use and set for "open".

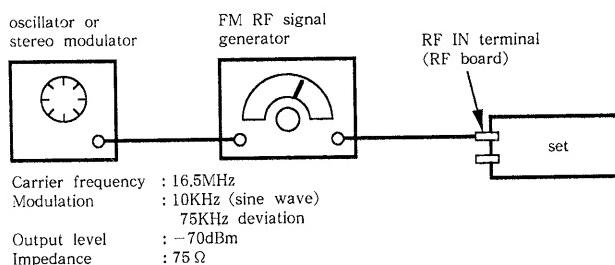
Pin No.	Pin Name	I/O	Description
56	CK16	I	Outputs 64 clocks to enable the microprocessor to transmit the data. Must be connected with the microprocessor.
57	DT16	I	Must be connected with the transmission microprocessor so that the microprocessor transmits 64 bit data.
58	SOUT	O	Normally not in use and must be set for "open". (This terminal enables to serial monitor of the data input from DT16.)
59	TOP	O	Outputs the 100Hz signal which informs the transmission microprocessor of the top of the data. Must be connected with the microprocessor.
60	BIPH	I	Input terminal which receives the bi-phase signal sent from the RF amp.
61	BIDT	O	Normally not in use. Must be set for "open".
62	SDAT	O	Outputs NR2 which is the data input to DT16 from the transmission microprocessor, then added with CRC.
63	INIT	I	Initializing terminal for testing. Normally it is fixed for "H".
64	Vcc		Power terminal, (+5V)

SECTION 3

ELECTRICAL ADJUSTMENTS

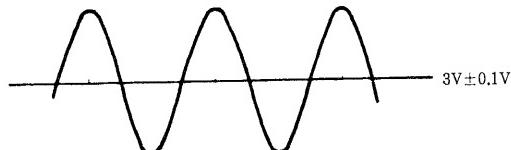
[1] ADJUSTMENT OF REMOTE CONTROL RECEPTION WAVE DETECTION

Setting :

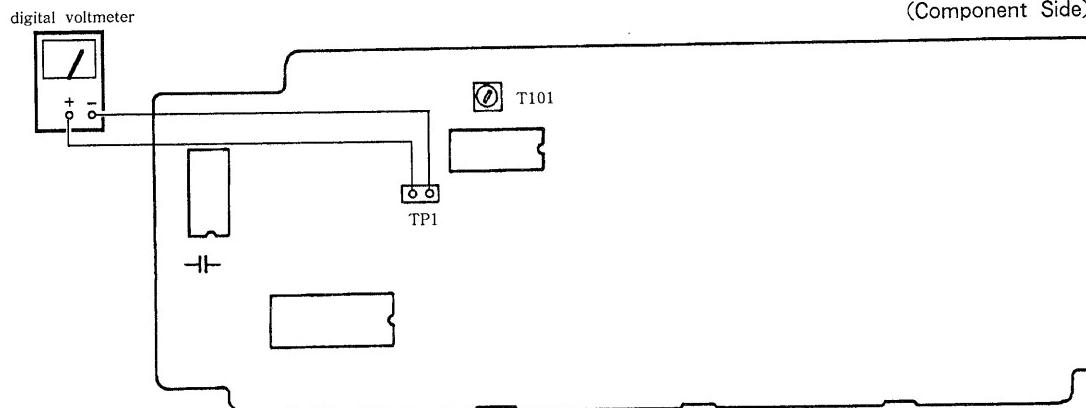


Procedure :

1. Turn the power switch ON (insert the power cord in an AC outlet).
2. Connect the digital voltmeter to TP1.
3. Adjust T101 so that the digital voltmeter reading is $3V \pm 0.1V$.
4. Connect the oscilloscope to TP1 and confirm that there are no waveform abnormalities.



Adjustment Location : RF board



[2] ADJUSTMENT OF CHANNEL SWITCHING CONTROL VOLTAGE

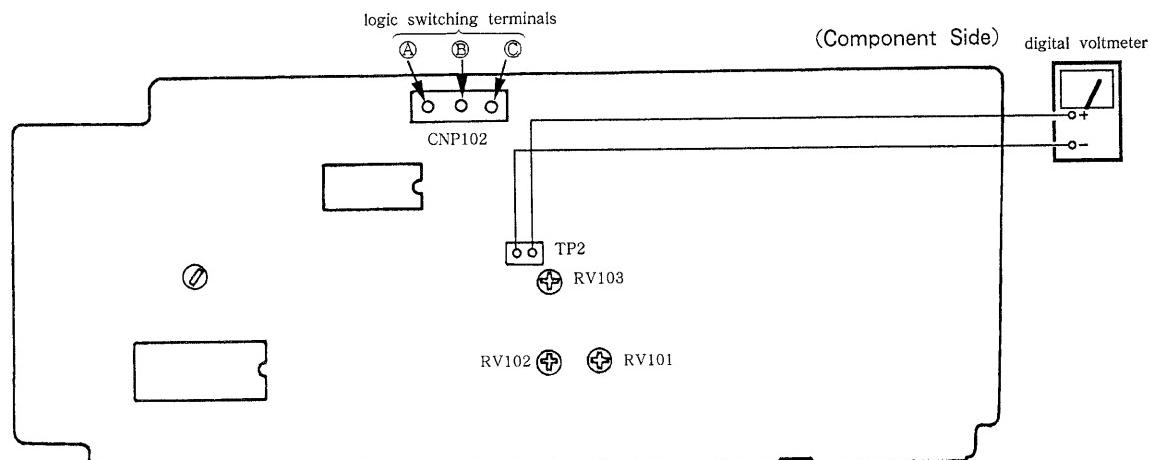
Procedure :

1. Remove the CNP102 connector for switching of P1, P2 logic.
2. Connect the touch panel RMR-TP1 to the set, press the function switch TV/AUX and turn the power ON.
3. Connect the digital voltmeter to TP2.
4. Adjust VR101, RV102 and RV103 so that the logic of terminals P1 and P2 of CNP102 and the voltage display on the digital voltmeter are as shown in the table below.

P1	P2	CNP102 (Adjust point)	Adjustment part	digital voltmeter
L	H	Ⓐ - Ⓛ, Ⓜ - Ⓝ open	RV103	2.4V±0.1V
H	L	Ⓐ - Ⓛ, Ⓜ - Ⓝ short	RV102	5.5V±0.1V
H	H	Ⓐ - Ⓛ, Ⓜ - Ⓝ short	RV102	10.0V±0.1V

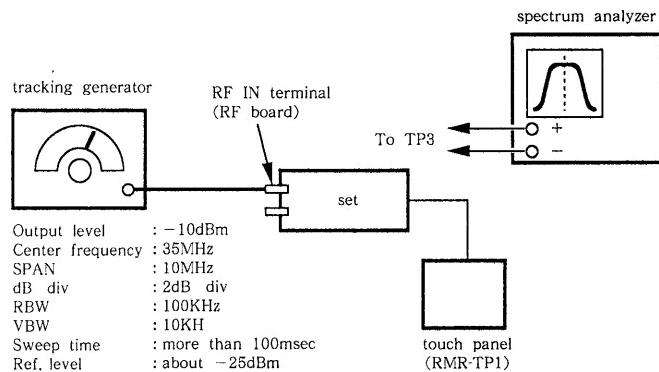
L=0V, H=5V

Adjustment Location : RF board



[3] ADJUSTMENT OF PCM TUNER

Setting :



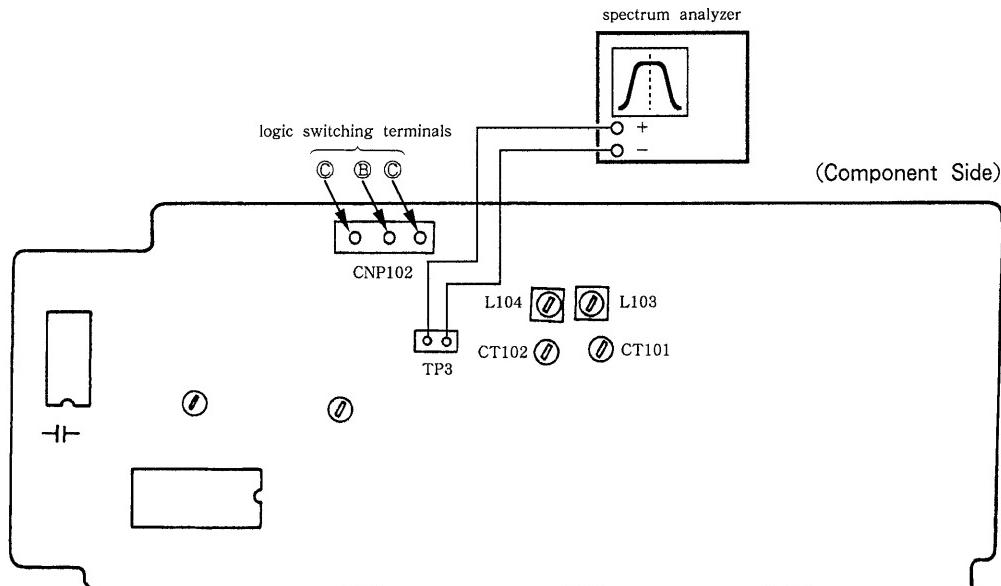
Procedure :

1. Press the function switch TV/AUX on the touch panel (RMR-TP1).
2. Connect the spectrum analyzer to TP3.
3. Use the spectrum analyzer to observe the waveforms at that timer for the logic states of terminal P1 and P2 of CNP102. Adjust L103, L104 and CT101, CT102 to obtain the values shown below.

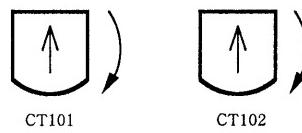
P1	P2	CNP102 (Adjust point)	Adjustment part	fc (MHz)
L	H	Ⓐ - Ⓑ , Ⓑ - Ⓒ open	L103, L104	32.0MHz
H	L	Ⓐ - Ⓑ , Ⓑ - Ⓒ short	—	35.0MHz
H	H	Ⓐ - Ⓑ , Ⓑ - Ⓒ short	CT101, CT102	38.0MHz

L=0V, H=5V

Adjustment Location : RF Board



- (i) First turn CT101 and CT102 clockwise 180 degrees.



- (ii) Adjust to (P1 : L, P2 : H) and turn alternately a little at a time until the center of the waveform crests is 32MHz and the top of the crest is as flat as possible (See Figure 1-1).
- (iii) Adjust to (P1 : H, P2 : H) and turn alternately a little at a time until the center of the waveforms is 38MHz and the top of the crest is as flat as possible (See Figure 1-2).
- (iv) Alternately carry out the adjustments in (ii) and (iii) three or four times.
- (v) Adjust to (P1 : H, P2 : L) and check that the center of the waveform is 35MH (See Figure 1-3).

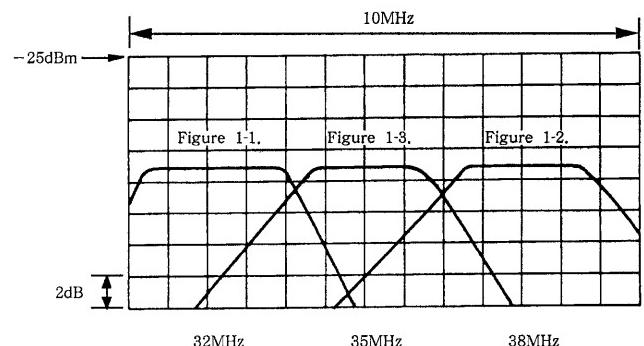
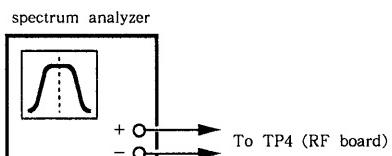


Figure 1.

[4] ADJUSTMENT OF PCM TUNER OSC

Setting :



Center frequency : 42.5MHz
 SPAN : 10MHz
 dB div : 2dB./div
 RBW : 100KHz
 VBW : 10KHz
 Sweep time : more than 100msec
 Ref. level : about -45dBm

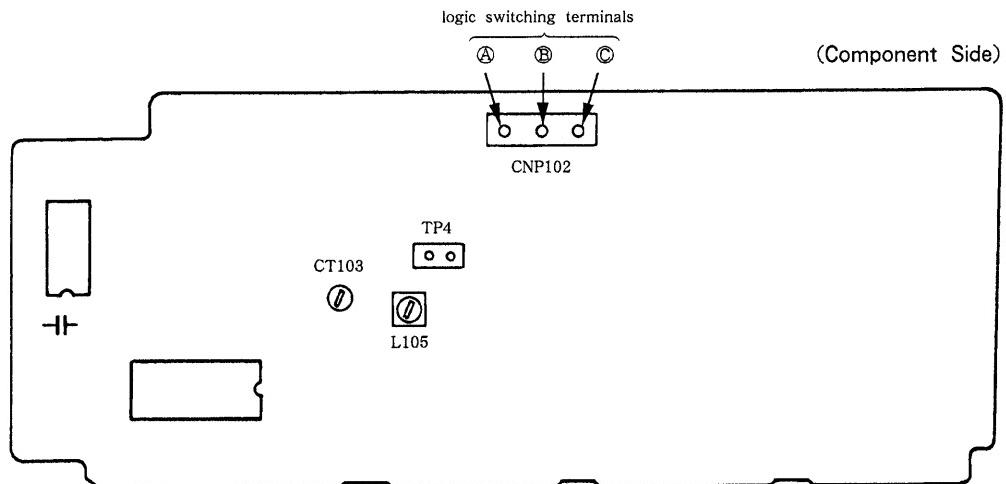
Procedure :

1. Connect the spectrum analyzer to TP4.
2. Adjust so that the waveforms at that time for the logic states of terminal P1 and P2 of CNP102 are as shown in the table below.

P1	P2	CNP102 (Adjust point)	Adjustment part	f osc (MHz)
L	H	Ⓐ - Ⓛ, Ⓛ - Ⓜ open short	L105	39.5±100KHz
H	L	Ⓐ - Ⓛ, Ⓛ - Ⓜ short open	—	42.5±200KHz
H	H	Ⓐ - Ⓛ, Ⓛ - Ⓜ short short	CT103	45.5±100KHz

L=0V, H=5V

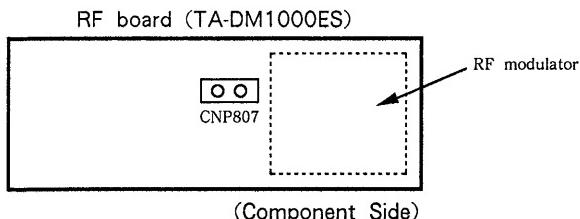
Adjustment Location : RF Board



[5] ADJUSTMENT OF PHASE SHIFT KEYING VCO

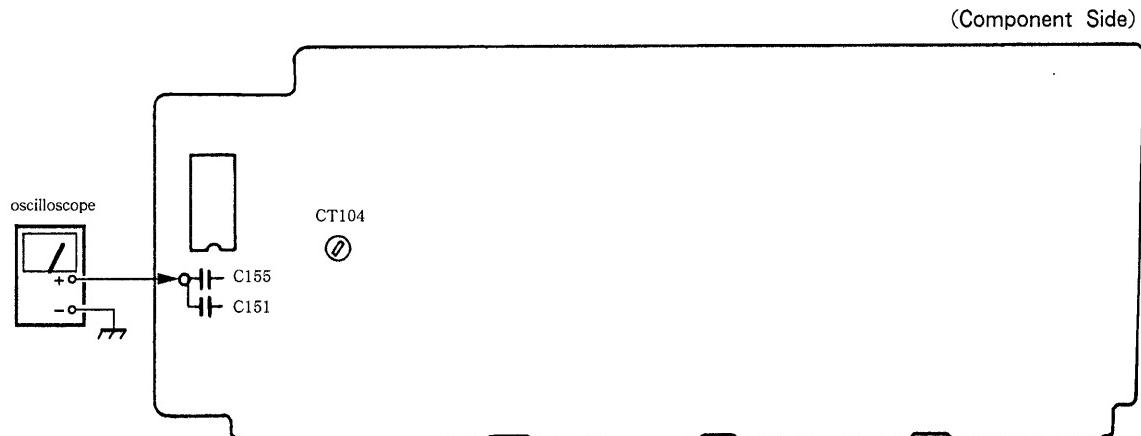
(Cautions)

1. Before setting, be sure to remove the CNP807 (2P) connector from the RF board of the TA-DM1000ES and connect it to the RF attenuator. Connecting to the RF attenuator without first removing the CNP807 could cause burn damage to the attenuator.



2. The TA-DL100 and TA-DM1000ES have different power sources. Also, the TA-DM1000ES power source can be turned ON and OFF at the source.
3. When at all possible, use a coaxial cable of 2 meters or less.

Adjustment Location : RF Board

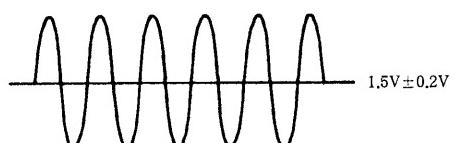


[6] DECODER PLL ADJUSTMENT

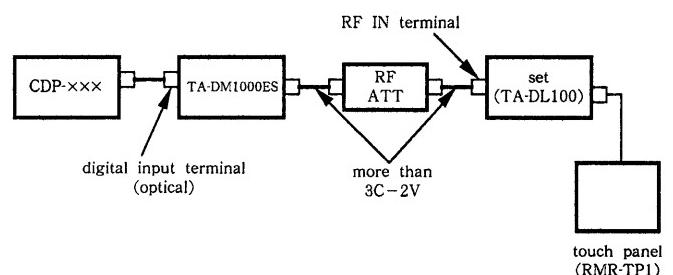
Setting : see [5]

Procedure :

1. Connect the oscilloscope to TP201 (being sure to set the probe to $\times 10$).
2. Observe the oscilloscope waveforms and adjust L202 so that the center of the waveforms of the oscillation frequency is $1.5V$.



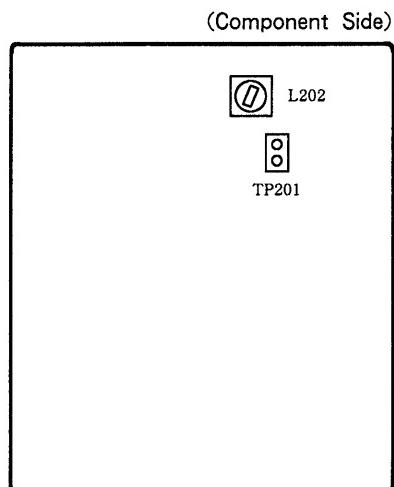
Setting :



Procedure :

1. Press the function switch CD1 on the touch panel (RMR-TP1).
2. Connect the oscilloscope to the C151 and C155 connections and check the eye pattern.
3. Attenuate the RF attenuator 1dB at a time from $-30dB$ to about $-40dB$ and adjust CT104 so that the eye pattern can be seen even with weak input.

Adjustment Location : DECODER board

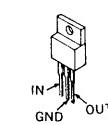


MEMO

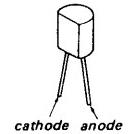
SECTION 4 DIAGRAMS

4-1. SEMICONDUCTOR LEAD LAYOUTS

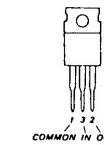
M5F7812L
M5F7808L



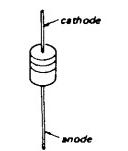
FC52M-5



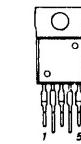
M5F7912
M5F7905L



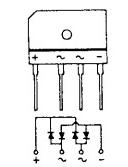
HZS6A3L
UZL-6M2
1SS120
11ES2



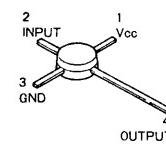
L78MR05



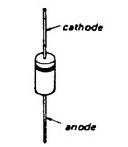
RBA-402



μ PC1651G



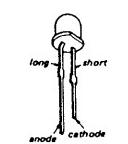
1S1585
10E2



DTA114ES
DTC114ES
2SC2458-YGR
2SC3622A-LK



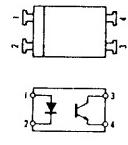
SEL2210S-D



2SC1845-EA



TLP521-1-GR



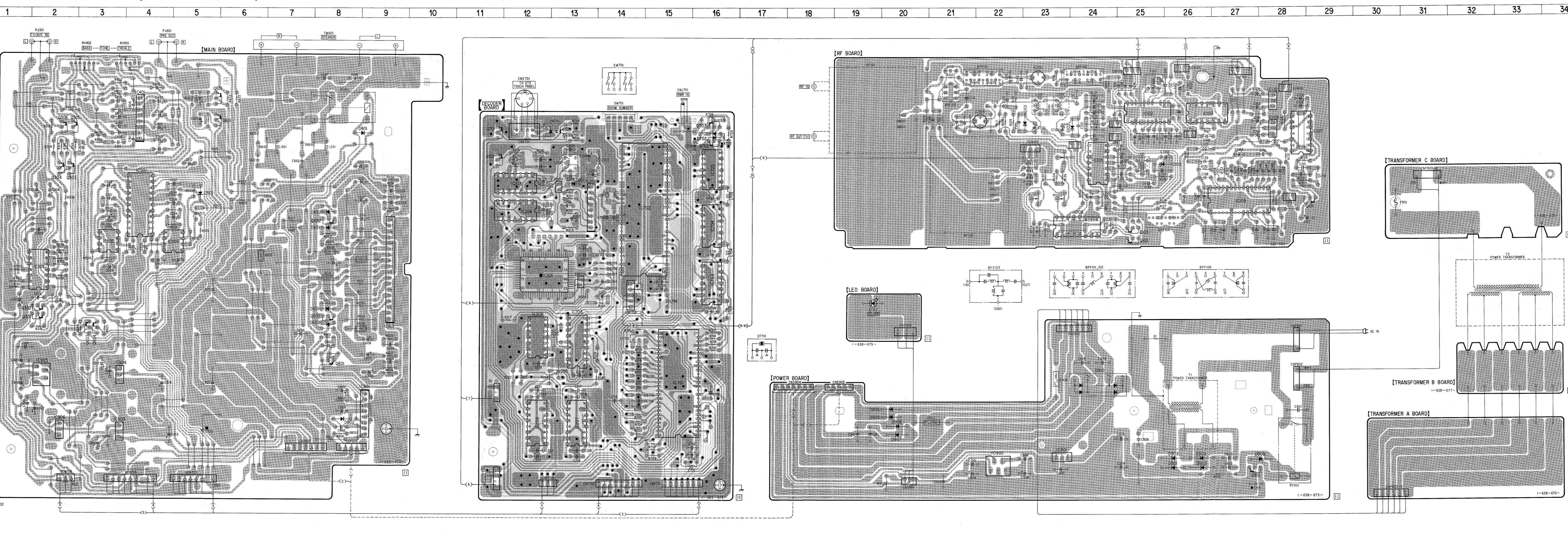
4-2. PRINTED WIRING BOARDS • Refer to Page 15 for Semiconductor Lead Layouts.

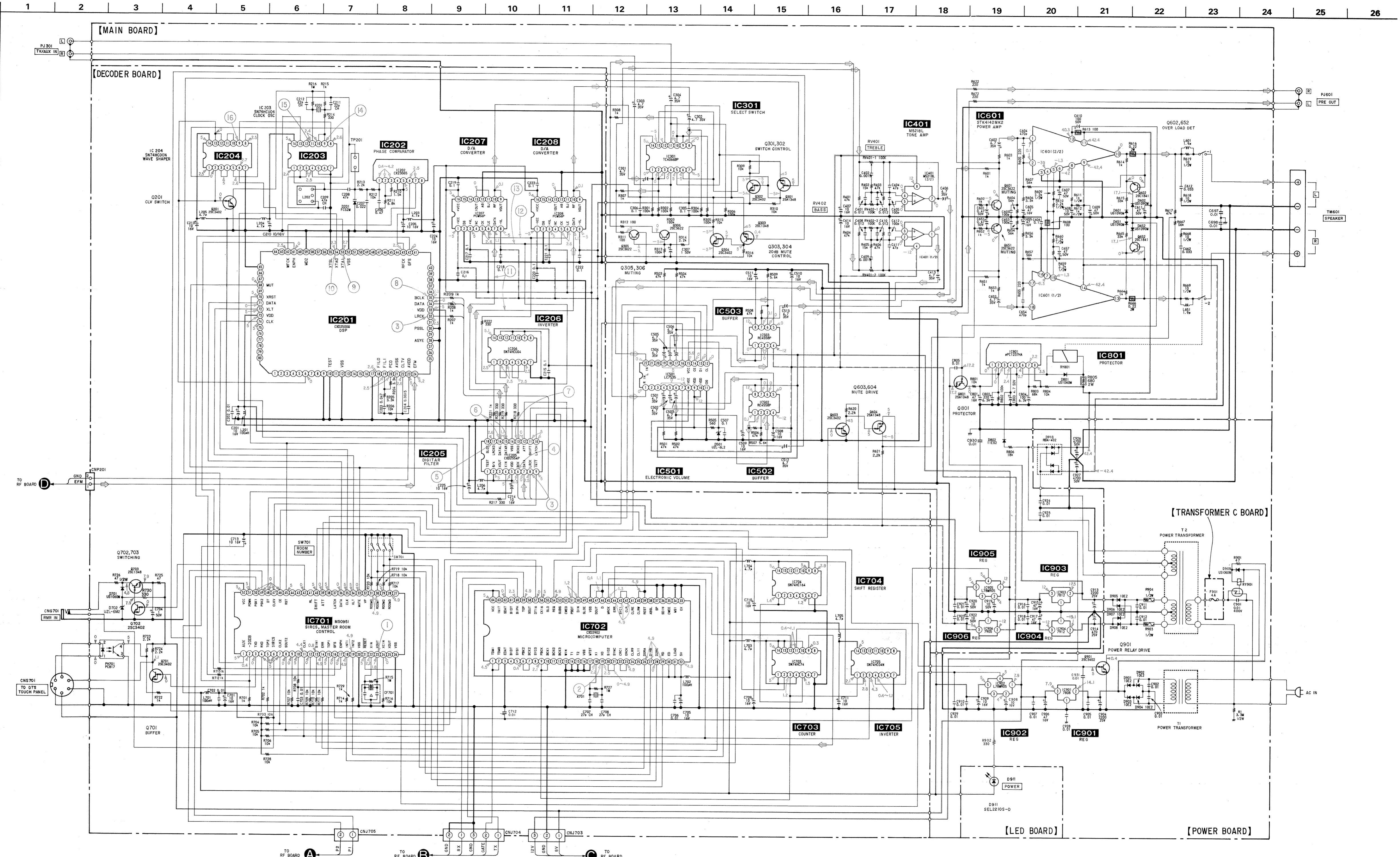
• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D101	C-23	IC501	D-4
D102	C-24	IC502	E-3
D103	D-25	IC503	E-5
D201	D-13	IC601	F-9
D501	D-5	IC701	H-15
D601	G-8	IC702	D-14
D602	G-8	IC703	F-16
D651	E-8	IC704	E-16
D652	E-8	IC705	D-16
D701	C-16	IC801	I-9
D702	C-16	IC901	J-23
D801	C-9	IC902	J-22
D802	I-8	IC903	I-3
D901	J-26	IC904	H-3
D902	J-26	IC905	H-2
D903	J-26	IC906	I-2
D904	J-26		
D905	I-20		
D906	I-20		
D907	I-20		
D908	I-20		
D909	J-28		
D910	H-24		
D911	F-19		
IC101	B-23		
IC102	C-25		
IC103	C-26		
IC104	C-22		
IC105	D-24		
IC106	D-27		
IC107	C-28		
IC108	E-24		
IC109	C-28		
IC110	B-28		
IC201	F-12		
IC202	D-13		
IC203	D-12		
IC204	E-12		
IC205	G-13		
IC206	G-12		
IC207	I-13		
IC208	I-12		
IC301	F-2		
IC401	C-4		

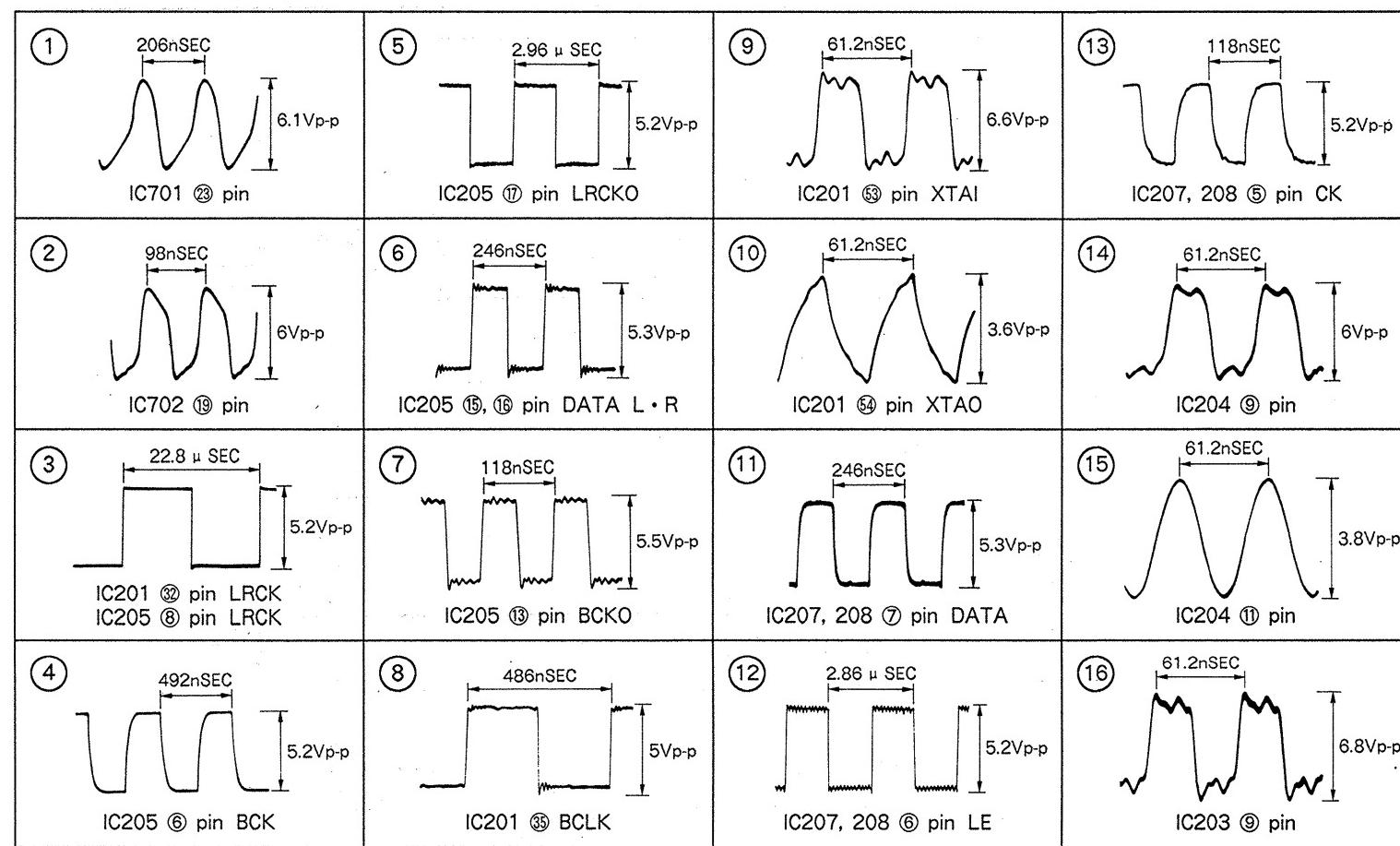
Note:

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : parts mounted on the conductor side.
- ▨ : Pattern on the side which is seen.
- ▨▨ : Pattern of the rear side.

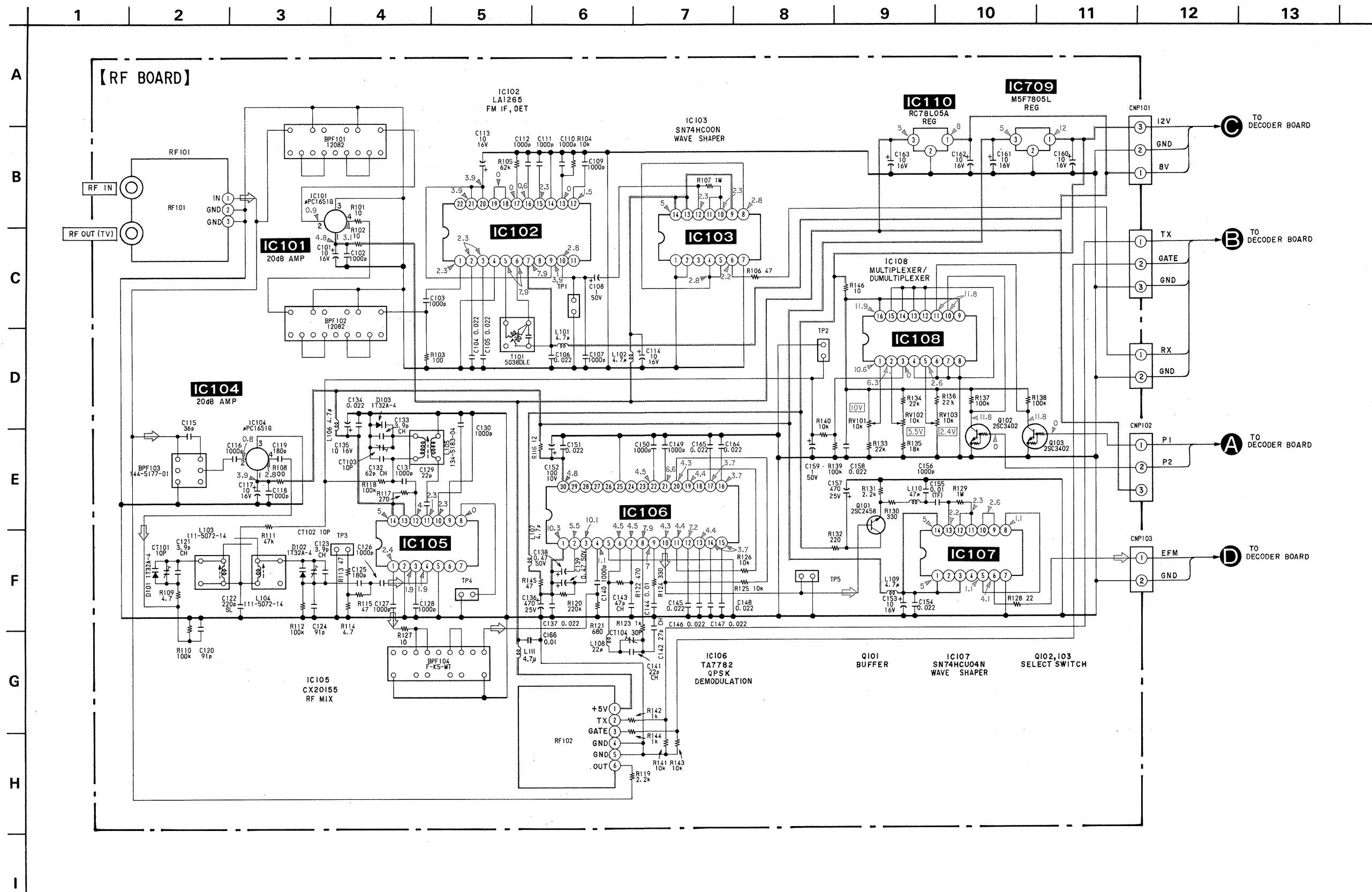




4-4. WAVEFORMS

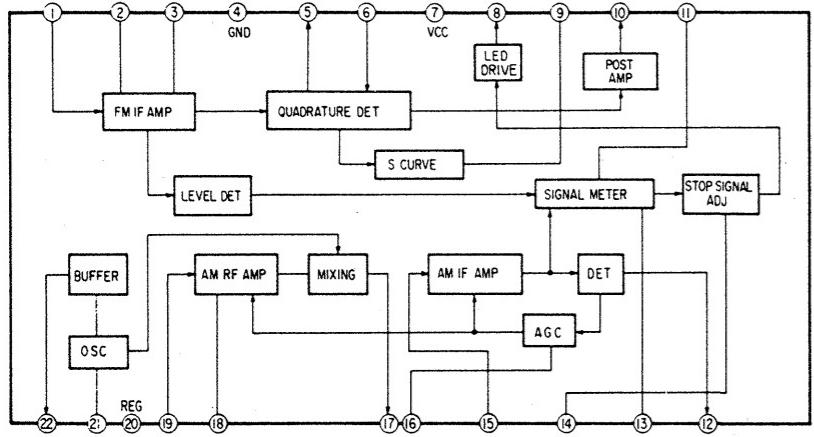


4-5. SCHEMATIC DIAGRAM -RF BOARD-

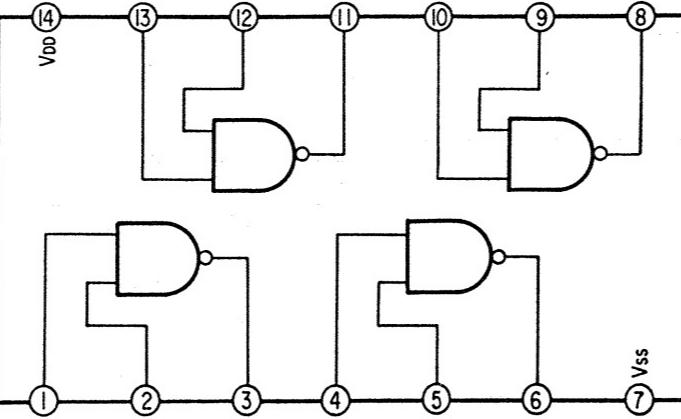


4-6. IC BLOCK DIAGRAMS

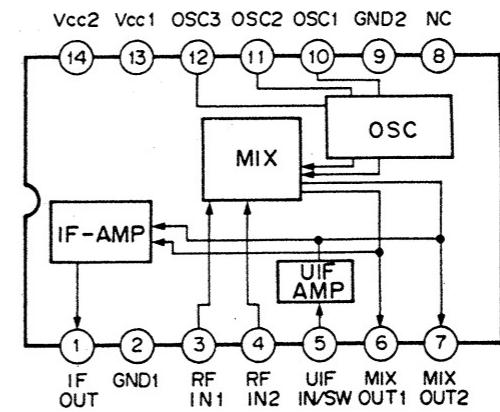
IC102 LA1265



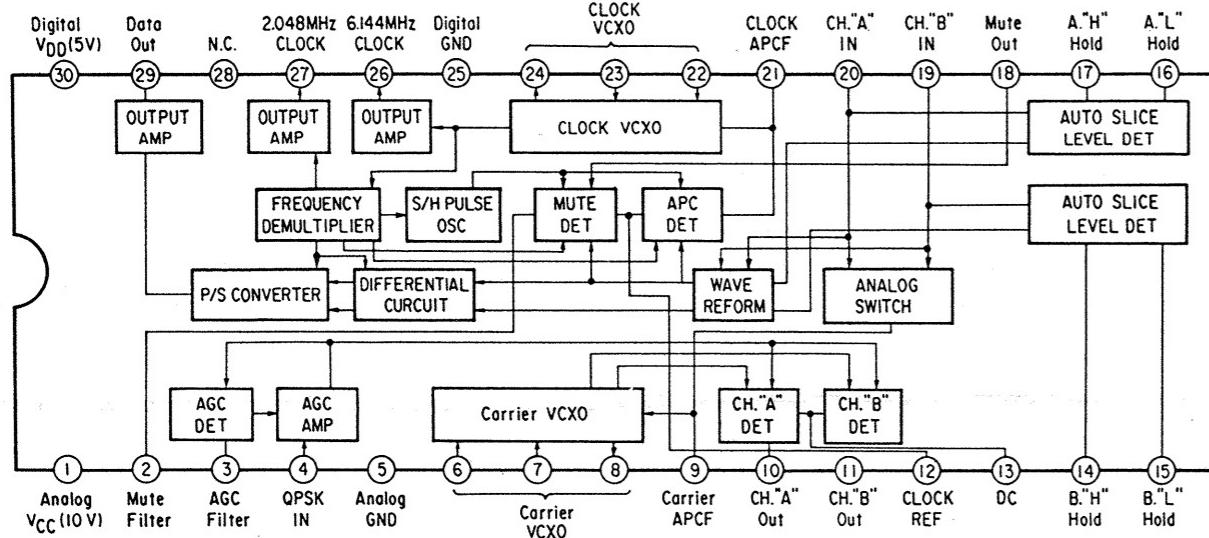
IC103 TC74HC00P



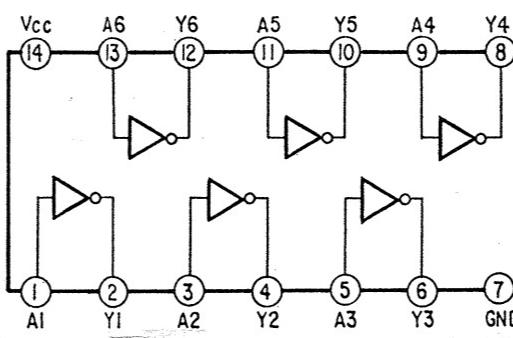
IC105 CXA1125P



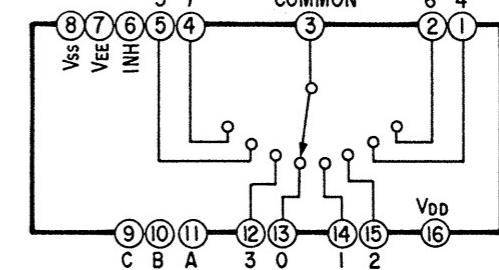
IC106 TA7782N



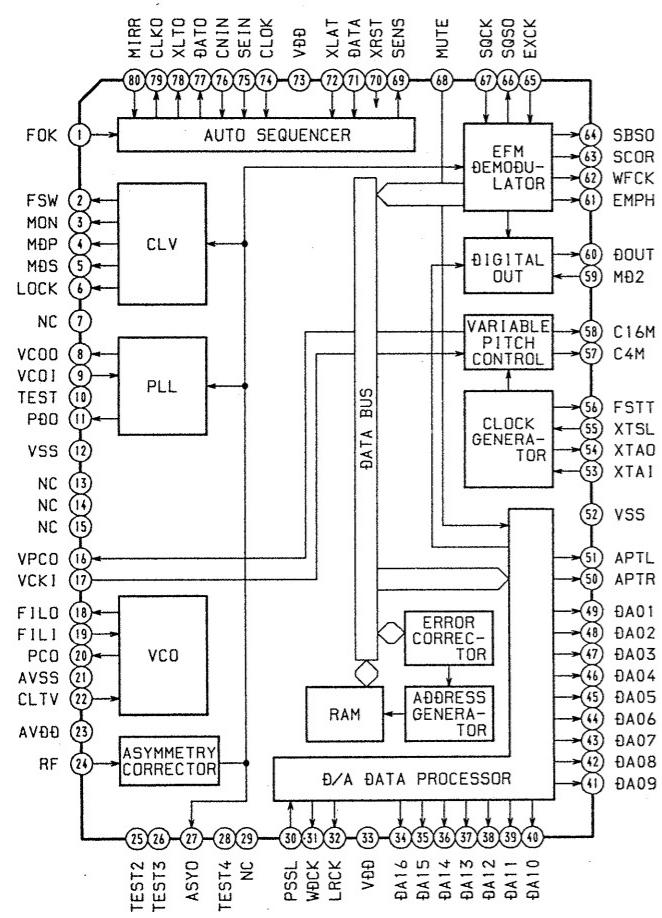
IC107 SN74HCU04N
IC705 SN74HC04N



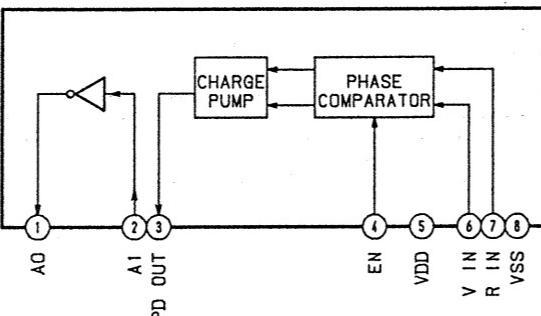
IC108 TC4051BPHB



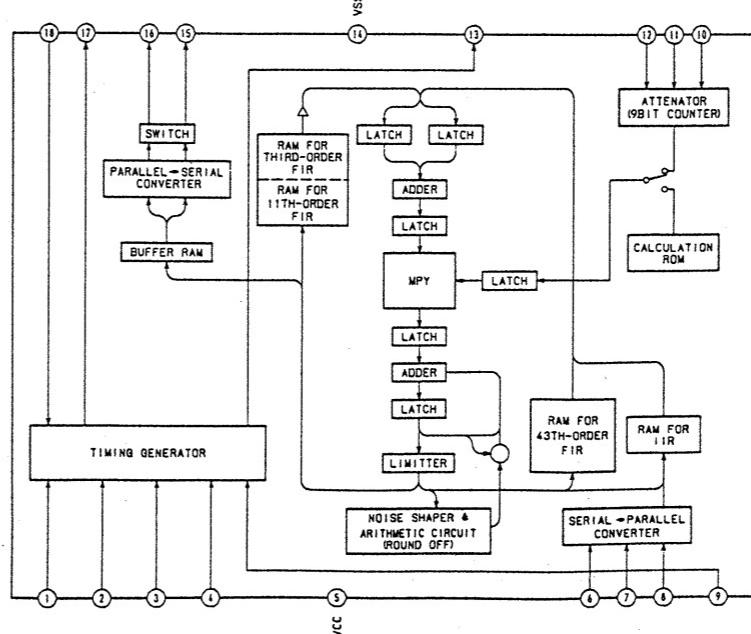
IC201 CXD2500Q



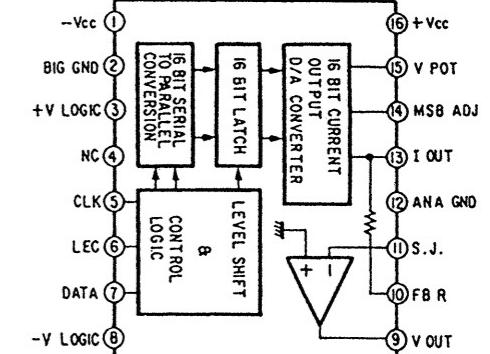
IC202 CX23065



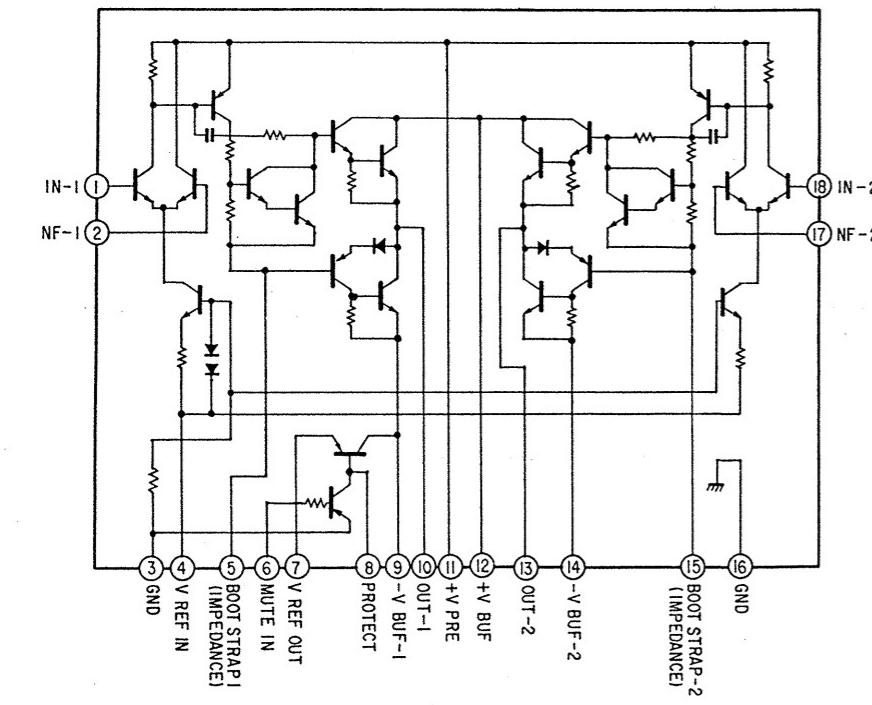
IC205 CXD2554P



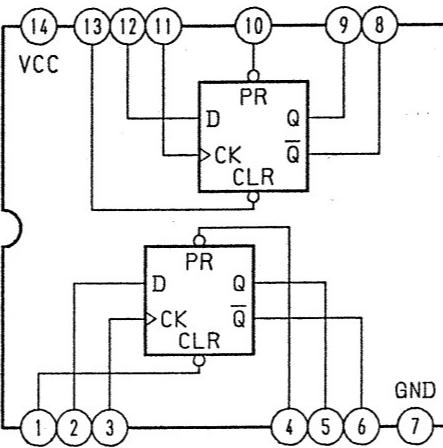
IC207, 208 PCM56P-S



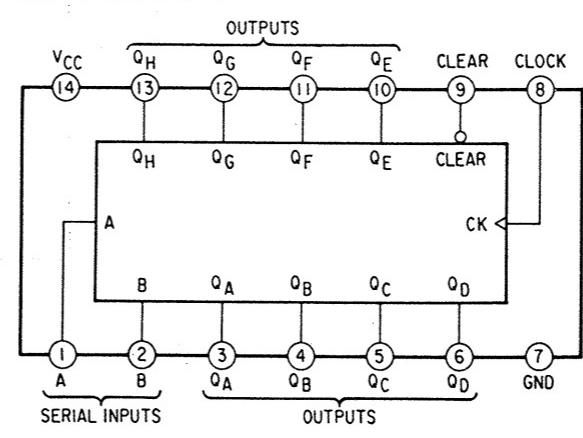
IC601 STK4142MK2



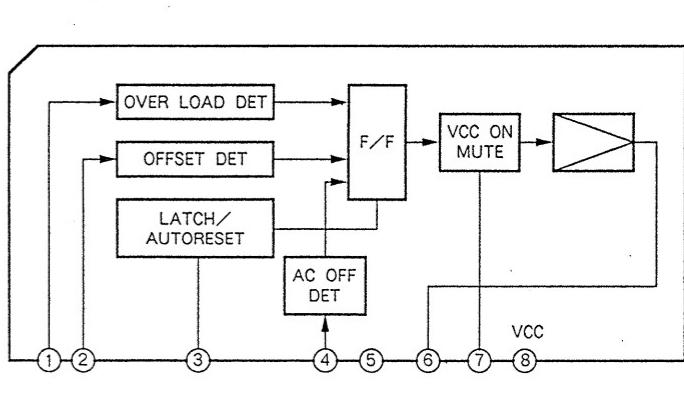
IC703 SN74HC74N



IC704 SN74HC164N



IC801 μ PC1237HA



SECTION 5 EXPLODED VIEW

NOTE:

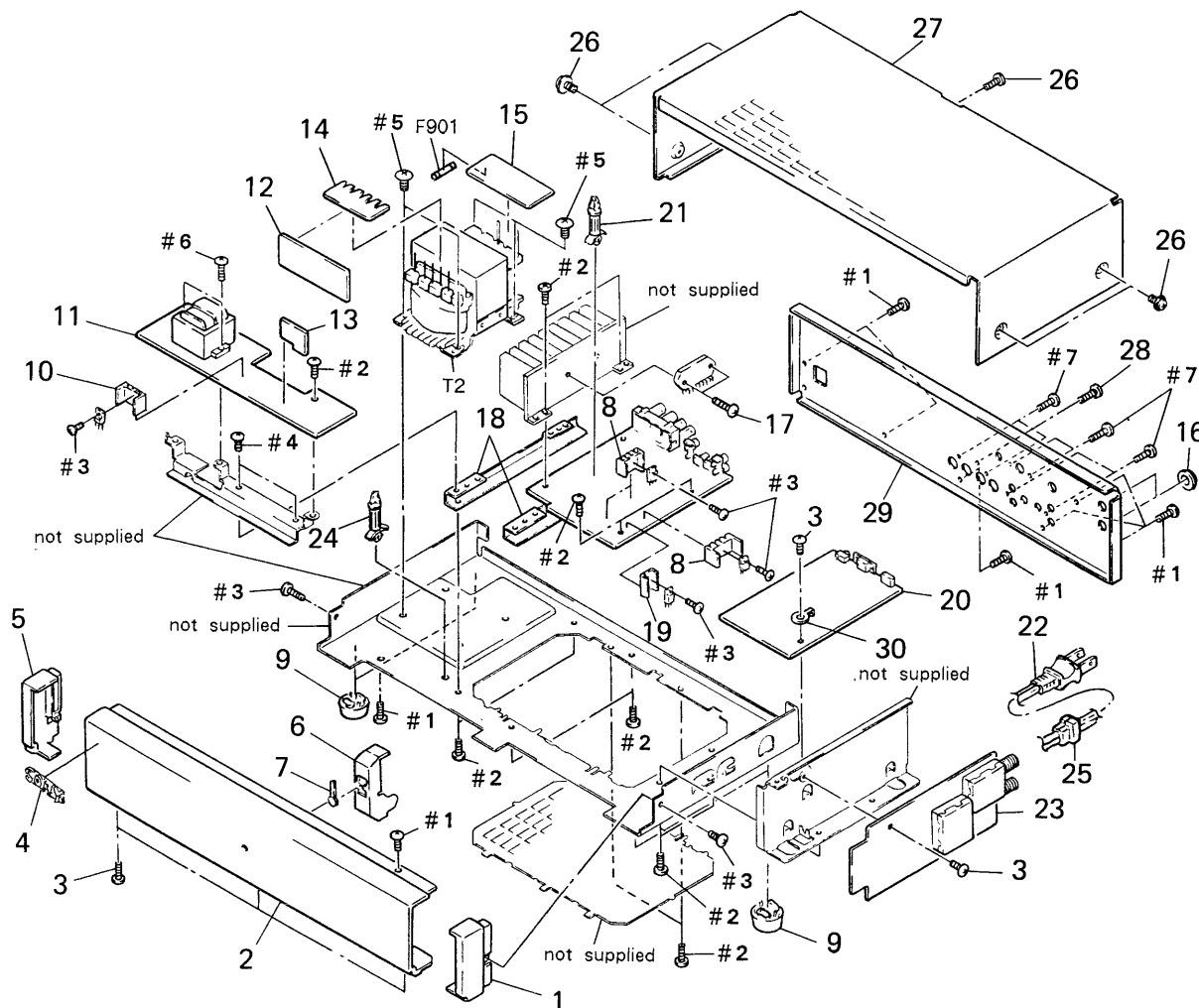
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color indication of Appearance Parts Example:
KNOB, BALANCE (WHITE)....(RED)

↑
Parts color Cabinet's color

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (#mark) list is given in the last of this parts list.

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-943-549-01	PANEL (R). SIDE		17	4-928-635-11	SCREW, +BV (2.6X16) TAPPING	
2	4-943-548-01	PANEL, FRONT		18	* 4-921-314-01	BRACKET (P)	
3	3-703-685-21	SCREW (+BV 3X8)		19	* 3-309-144-21	HEAT SINK	
4	4-908-848-01	EMBLEM, SONY		20	* A-4341-447-A	DECODER BOARD, COMPLETE	
5	4-943-550-01	PANEL (L). SIDE		21	* 4-924-098-81	HOLDER, PC BOARD	
6	* 4-943-554-01	PAENL, SUB		22	△ 1-575-975-11	CORD, POWER	
7	4-943-376-01	WINDOW (A)		23	* A-4341-444-A	RF BOARD, COMPLETE	
8	* A-4341-442-A	MAIN BOARD, COMPLETE		24	* 3-703-353-08	SUPPORTER, PC BOARD	
9	4-930-848-01	FOOT		25	* 3-703-244-00	BUSHING (2104), CORD	
10	* 4-363-146-21	HEAT SINK, V. OUT		26	3-704-366-01	SCREW (CASE) (M3X8)	
11	* 1-638-675-11	POWER BOARD		27	* 4-943-546-11	CASE	
12	* 1-638-678-11	TRANSFORMER C BOARD		28	7-621-849-00	SCREW, TAPPING	
13	* 1-638-679-11	LED BOARD		29	* 4-943-547-01	PAENL, BACK	
14	* 1-638-677-11	TRANSFORMER B BOARD		30	4-870-539-00	PLATE, GROUND	
15	* 1-638-676-11	TRANSFORMER A BOARD		F901	△ 1-532-746-11	FUSE, GLASS TUBE	
16	3-682-691-00	NUT, WASHER HEXAGON		T2	△ 1-450-321-11	TRANSFORMER, POWER	

DECODER

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA....: μ A...., uPA....: μ PA....
uPB....: μ PB...., uPC....: μ PC....
uPD....: μ PD....
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark or dotted line with mark are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	* A-4341-447-A	DECODER BOARD, COMPLETE		C701	1-126-157-11	ELECT	10uF 20% 16V
	*****	*****		C702	1-161-379-00	CERAMIC	0.01uF 20% 25V
	4-870-539-00	PLATE, GROUND		C703	1-161-379-00	CERAMIC	0.01uF 20% 25V
	< CAPACITOR >			C704	1-126-301-11	ELECT	1uF 20% 50V
C201	1-126-157-11	ELECT	10uF 20% 16V	C705	1-126-157-11	ELECT	10uF 20% 16V
C202	1-161-379-00	CERAMIC	0.01uF 20% 25V	C706	1-161-379-00	CERAMIC	0.01uF 20% 25V
C203	1-130-491-00	MYLAR	0.047uF 5% 50V	C707	1-164-056-11	CERAMIC	27PF 5% 50V
C204	1-130-473-00	MYLAR	0.0015uF 5% 50V	C708	1-164-056-11	CERAMIC	27PF 5% 50V
C205	1-126-157-11	ELECT	10uF 20% 16V	C709	1-126-157-11	ELECT	10uF 20% 16V
C206	1-136-173-00	FILM	0.47uF 5% 50V	C710	1-126-157-11	ELECT	10uF 20% 16V
C207	1-136-157-00	MYLAR	0.022uF 10% 50V	C711	1-126-157-11	ELECT	10uF 20% 16V
C208	1-164-035-11	CERAMIC	47PF 5% 50V	C712	1-161-379-00	CERAMIC	0.01uF 20% 25V
C209	1-164-035-11	CERAMIC	47PF 5% 50V	C713	1-126-157-11	ELECT	10uF 20% 16V
C210	1-126-157-11	ELECT	10uF 20% 16V			< CERAMIC >	
C211	1-164-027-11	CERAMIC	22PF 5% 50V	CF701	1-579-233-11	VIBRATOR, CERAMIC	
C212	1-164-027-11	CERAMIC	22PF 5% 50V			< CONNECTOR >	
C213	1-126-157-11	ELECT	10uF 20% 16V	CNJ701	1-580-456-11	JACK (SMALL TYPE) (RMR IN)	
C214	1-126-157-11	ELECT	10uF 20% 16V	CNP201	* 1-564-505-11	PLUG, CONNECTOR 2P	
C215	1-164-159-11	CERAMIC	0.1uF 50V	CNP701	* 1-564-510-11	PLUG, CONNECTOR 7P	
C216	1-164-159-11	CERAMIC	0.1uF 50V	CNP702	* 1-564-511-11	PLUG, CONNECTOR 8P	
C217	1-164-159-11	CERAMIC	0.1uF 50V	CNP703	* 1-564-506-11	PLUG, CONNECTOR 3P	
C218	1-164-159-11	CERAMIC	0.1uF 50V	CNP704	* 1-564-508-11	PLUG, CONNECTOR 5P (TO DTS TOUCH PANEL)	
C219	1-164-159-11	CERAMIC	0.1uF 50V	CNS701	1-580-725-11	CONNECTOR, DIN (SMALL) 6P	
C220	1-164-159-11	CERAMIC	0.1uF 50V			< DIODE >	
C221	1-164-159-11	CERAMIC	0.1uF 50V	D201	8-719-907-19	DIODE FC52M-5	
C222	1-164-159-11	CERAMIC	0.1uF 50V	D701	8-719-912-20	DIODE 1SS120	
C223	1-164-159-11	CERAMIC	0.1uF 50V	D702	8-719-000-60	DIODE UZL-6M2	
C224	1-126-157-11	ELECT	10uF 20% 16V				
C225	1-126-157-11	ELECT	10uF 20% 16V				

DECODER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< IC >							
IC201	8-752-335-15	IC CXD2500Q		R214	1-249-411-11	CARBON	330 5% 1/4W
IC202	8-752-306-51	IC CX23065A		R215	1-249-417-11	CARBON	1K 5% 1/4W
IC203	8-759-917-18	IC SN74HCU04N		R216	1-247-903-00	CARBON	1M 5% 1/4W
IC204	8-759-916-12	IC SN74HC00N		R217	1-249-411-11	CARBON	330 5% 1/4W
IC205	8-752-337-09	IC CXD2554P		R218	1-249-411-11	CARBON	330 5% 1/4W
IC206	8-759-917-18	IC SN74HCU04N		R219	1-249-411-11	CARBON	330 5% 1/4W
IC207	8-759-998-22	IC PCM56P		R220	1-249-411-11	CARBON	330 5% 1/4W
IC208	8-759-998-22	IC PCM56P		R221	1-249-417-11	CARBON	1K 5% 1/4W
IC701	8-759-636-26	IC M50951-112SP		R222	1-249-411-11	CARBON	330 5% 1/4W
IC702	8-759-510-05	IC CXD2902S		R701	1-249-417-11	CARBON	1K 5% 1/4W
IC703	8-759-916-29	IC SN74HC74N		R702	1-249-417-11	CARBON	1K 5% 1/4W
IC704	8-759-921-22	IC SN74HC164N		R703	1-249-429-11	CARBON	10K 5% 1/4W
IC705	8-759-916-14	IC SN74HC04N		R704	1-249-429-11	CARBON	10K 5% 1/4W
< COIL >							
L201	1-408-421-00	INDUCTOR	100uH	R705	1-249-429-11	CARBON	10K 5% 1/4W
L202	1-460-099-11	COIL		R706	1-249-429-11	CARBON	10K 5% 1/4W
L203	1-410-324-11	INDUCTOR	4.7uH	R707	1-249-429-11	CARBON	10K 5% 1/4W
L204	1-410-324-11	INDUCTOR	4.7uH	R708	1-249-429-11	CARBON	10K 5% 1/4W
L205	1-410-324-11	INDUCTOR	4.7uH	R709	1-249-429-11	CARBON	10K 5% 1/4W
L206	1-410-324-11	INDUCTOR	4.7uH	R710	1-249-429-11	CARBON	10K 5% 1/4W
L701	1-408-421-00	INDUCTOR	100uH	R711	1-249-429-11	CARBON	10K 5% 1/4W
L702	1-408-421-00	INDUCTOR	100uH	R712	1-249-417-11	CARBON	1K 5% 1/4W
L703	1-410-324-11	INDUCTOR	4.7uH	R713	1-249-417-11	CARBON	1K 5% 1/4W
L704	1-410-324-11	INDUCTOR	4.7uH	R714	1-249-417-11	CARBON	1K 5% 1/4W
L705	1-410-324-11	INDUCTOR	4.7uH	R715	1-247-903-00	CARBON	1M 5% 1/4W
< PHOTO INTERRUPTER >							
PH701	8-719-802-04	DIODE TLP521-1-GR		R716	1-249-429-11	CARBON	10K 5% 1/4W
< TRANSISTOR >							
Q201	8-729-900-80	TRANSISTOR DTC114ES		R717	1-249-429-11	CARBON	10K 5% 1/4W
Q701	8-729-900-80	TRANSISTOR DTC114ES		R718	1-249-429-11	CARBON	10K 5% 1/4W
Q702	8-729-900-80	TRANSISTOR DTC114ES		R719	1-249-429-11	CARBON	10K 5% 1/4W
Q703	8-729-900-61	TRANSISTOR DTA114ES		R720	1-249-429-11	CARBON	10K 5% 1/4W
< RESISTOR >							
R204	1-249-423-11	CARBON	3.3K	R721	1-249-417-11	CARBON	1K 5% 1/4W
R205	1-249-423-11	CARBON	3.3K	R722	1-249-417-11	CARBON	1K 5% 1/4W
R206	1-249-429-11	CARBON	10K	R723	1-249-421-11	CARBON	2.2K 5% 1/4W
R207	1-249-417-11	CARBON	1K	R724	1-249-421-11	CARBON	2.2K 5% 1/4W
R208	1-249-417-11	CARBON	1K	R725	1-249-401-11	CARBON	47 5% 1/4W
R209	1-249-417-11	CARBON	1K	R726	1-260-083-81	CARBON	47 5% 1/2W
R210	1-249-419-11	CARBON	1.5K	R727	1-247-903-00	CARBON	1M 5% 1/4W
R211	1-249-427-11	CARBON	6.8K	R728	1-249-429-11	CARBON	10K 5% 1/4W
R212	1-249-429-11	CARBON	10K	R729	1-249-417-11	CARBON	1K 5% 1/4W
R213	1-249-421-11	CARBON	2.2K	R730	1-249-411-11	CARBON	330 5% 1/4W
< SWITCH >							
SW701	1-572-681-11	SWITCH, DIGITAL (SMALL TYPE)					
		(ROOM NUMBER)					
< CONNECTOR >							
TP201	* 1-564-505-11	PLUG, CONNECTOR 2P					

DECODER MAIN

Ref. No.	Part No.	Description	Remark		Ref. No.	Part No.	Description	Remark	
< CRYSTAL >									
X201	1-567-908-11	VIBRATOR, CRYSTAL			C602	1-126-163-11	ELECT	4.7uF	20% 50V
X701	1-579-177-11	VIBRATOR, CRYSTAL			C603	1-162-282-31	CERAMIC	100PF	10% 50V

* A-4341-442-A MAIN BOARD, COMPLETE									

* 3-309-144-21 HEAT SINK									
* 4-363-146-21 HEAT SINK, V. OUT									
4-870-539-00 PLATE, GROUND									
< CAPACITOR >									
C301	1-126-163-11	ELECT	4.7uF	20% 50V	C607	1-124-910-11	ELECT	47uF	20% 50V
C302	1-126-163-11	ELECT	4.7uF	20% 50V	C608	1-124-907-11	ELECT	10uF	20% 50V
C303	1-126-163-11	ELECT	4.7uF	20% 50V	C609	1-124-910-11	ELECT	47uF	20% 50V
C304	1-126-163-11	ELECT	4.7uF	20% 50V	C610	1-124-122-11	ELECT	100uF	20% 50V
C305	1-164-159-11	CERAMIC	0.1uF	50V	C611	1-124-910-11	ELECT	47uF	20% 50V
C306	1-164-159-11	CERAMIC	0.1uF	50V	C612	1-130-489-00	MYLAR	0.033uF	5% 50V
C307	1-126-301-11	ELECT	1uF	20% 50V	C651	1-124-902-00	ELECT	0.47uF	20% 50V
C401	1-130-484-00	MYLAR	0.012uF	5% 50V	C652	1-126-163-11	ELECT	4.7uF	20% 50V
C402	1-130-473-00	MYLAR	0.0015uF	5% 50V	C653	1-162-282-31	CERAMIC	100PF	10% 50V
C403	1-130-484-00	MYLAR	0.012uF	5% 50V	C654	1-162-290-31	CERAMIC	470PF	10% 50V
C404	1-162-215-31	CERAMIC	47PF	5% 50V	C655	1-124-477-11	ELECT	47uF	20% 25V
C405	1-162-282-31	CERAMIC	100PF	10% 50V	C657	1-124-910-11	ELECT	47uF	20% 50V
C406	1-126-163-11	ELECT	4.7uF	20% 50V	C662	1-130-489-00	MYLAR	0.033uF	5% 50V
C407	1-126-157-11	ELECT	10uF	20% 16V	C697	1-164-095-11	CERAMIC	0.01uF	10% 16V
C408	1-130-484-00	MYLAR	0.012uF	5% 50V	C698	1-164-095-11	CERAMIC	0.01uF	10% 16V
C409	1-130-473-00	MYLAR	0.0015uF	5% 50V	C699	1-101-006-00	CERAMIC	0.047uF	50V
C410	1-130-484-00	MYLAR	0.012uF	5% 50V	C801	1-124-477-11	ELECT	47uF	20% 25V
C411	1-162-215-31	CERAMIC	47PF	5% 50V	C802	1-126-176-11	ELECT	220uF	20% 10V
C412	1-162-282-31	CERAMIC	100PF	10% 50V	C803	1-124-927-11	ELECT	4.7uF	20% 100V
C413	1-126-163-11	ELECT	4.7uF	20% 50V	C804	1-124-443-00	ELECT	100uF	20% 10V
C414	1-126-157-11	ELECT	10uF	20% 16V	C805	1-161-379-00	CERAMIC	0.01uF	20% 25V
C501	1-126-163-11	ELECT	4.7uF	20% 50V	C913	1-124-563-11	ELECT	2200uF	20% 25V
C502	1-126-163-11	ELECT	4.7uF	20% 50V	C914	1-124-480-11	ELECT	470uF	20% 25V
C503	1-126-163-11	ELECT	4.7uF	20% 50V	C915	1-124-477-11	ELECT	47uF	20% 25V
C504	1-126-163-11	ELECT	4.7uF	20% 50V	C916	1-161-379-00	CERAMIC	0.01uF	20% 25V
C505	1-126-163-11	ELECT	4.7uF	20% 50V	C917	1-124-477-11	ELECT	47uF	20% 25V
C506	1-126-163-11	ELECT	4.7uF	20% 50V	C918	1-161-379-00	CERAMIC	0.01uF	20% 25V
C507	1-164-159-11	CERAMIC	0.1uF	50V	C919	1-124-907-11	ELECT	10uF	20% 50V
C508	1-126-157-11	ELECT	10uF	20% 16V	C920	1-124-907-11	ELECT	10uF	20% 50V
C509	1-126-157-11	ELECT	10uF	20% 16V	C921	1-161-379-00	CERAMIC	0.01uF	20% 25V
C510	1-126-157-11	ELECT	10uF	20% 16V	C922	1-124-907-11	ELECT	10uF	20% 50V
C511	1-126-157-11	ELECT	10uF	20% 16V	C923	1-161-379-00	CERAMIC	0.01uF	20% 25V
C512	1-126-163-11	ELECT	4.7uF	20% 50V	C926	1-128-232-11	ELECT	4700uF	20% 50V
C513	1-126-163-11	ELECT	4.7uF	20% 50V	C927	1-128-232-11	ELECT	4700uF	20% 50V
C601	1-124-902-00	ELECT	0.47uF	20% 50V	C930	1-161-379-00	CERAMIC	0.01uF	20% 25V
< CONNECTOR >									
CNP906 * 1-565-367-11 PIN, CONNECTOR (PC BOARD) 5P									
CNP907 * 1-565-366-11 PIN, CONNECTOR (PC BOARD) 7P									

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< DIODE >							
D501	8-719-933-35	DIODE HZS6A3L		R301	1-249-441-11	CARBON	100K 5% 1/4W
D601	8-719-815-85	DIODE 1S1585		R302	1-249-441-11	CARBON	100K 5% 1/4W
D602	8-719-815-85	DIODE 1S1585		R303	1-249-441-11	CARBON	100K 5% 1/4W
D651	8-719-815-85	DIODE 1S1585		R304	1-249-441-11	CARBON	100K 5% 1/4W
D652	8-719-815-85	DIODE 1S1585		R305	1-249-441-11	CARBON	100K 5% 1/4W
D801	8-719-912-20	DIODE 1SS120		R306	1-249-441-11	CARBON	100K 5% 1/4W
D802	8-719-200-82	DIODE 11ES2		R307	1-249-417-11	CARBON	1K 5% 1/4W
< IC >							
IC301	8-759-000-49	IC MC14066BCP		R308	1-249-417-11	CARBON	1K 5% 1/4W
IC401	8-759-634-50	IC M5218AL		R309	1-249-429-11	CARBON	10K 5% 1/4W
IC501	8-759-820-11	IC LC7535		R310	1-249-429-11	CARBON	10K 5% 1/4W
IC502	8-759-945-58	IC RC4558P		R311	1-249-405-11	CARBON	100 5% 1/4W
IC503	8-759-945-58	IC RC4558P		R312	1-249-405-11	CARBON	100 5% 1/4W
IC601	8-749-900-24	IC STK4162MK2		R313	1-249-441-11	CARBON	100K 5% 1/4W
IC801	8-759-111-68	IC uPC1237HA		R314	1-249-421-11	CARBON	2.2K 5% 1/4W
IC903	8-759-604-33	IC M5F7812L		R315	1-249-429-11	CARBON	10K 5% 1/4W
IC904	8-759-604-51	IC M5F7912L		R316	1-249-429-11	CARBON	10K 5% 1/4W
IC905	8-759-820-84	IC L78MR05		R401	1-249-437-11	CARBON	47K 5% 1/4W
IC906	8-759-604-47	IC M5F7905L		R402	1-249-431-11	CARBON	15K 5% 1/4W
< COIL >							
L601	* 1-420-872-00	COIL, AIR CORE		R403	1-249-437-11	CARBON	47K 5% 1/4W
L651	* 1-420-872-00	COIL, AIR CORE		R404	1-249-437-11	CARBON	47K 5% 1/4W
< JACK >							
PJ301	1-565-352-21	JACK, PIN 2P (TV/AUX IN)		R405	1-249-431-11	CARBON	15K 5% 1/4W
PJ601	1-565-352-21	JACK, PIN 2P (PRE OUT)		R406	1-249-437-11	CARBON	47K 5% 1/4W
< TRANSISTOR >							
Q301	8-729-900-61	TRANSISTOR DTA114ES		R501	1-249-437-11	CARBON	47K 5% 1/4W
Q302	8-729-900-80	TRANSISTOR DTC114ES		R502	1-249-437-11	CARBON	47K 5% 1/4W
Q303	8-729-900-61	TRANSISTOR DTA114ES		R503	1-249-437-11	CARBON	47K 5% 1/4W
Q304	8-729-900-80	TRANSISTOR DTC114ES		R504	1-249-437-11	CARBON	47K 5% 1/4W
Q305	8-729-141-26	TRANSISTOR 2SC3622A-LK		R505	1-249-414-11	CARBON	560 5% 1/4W
Q306	8-729-141-26	TRANSISTOR 2SC3622A-LK		R506	1-249-437-11	CARBON	47K 5% 1/4W
Q601	8-729-141-26	TRANSISTOR 2SC3622A-LK		R507	1-249-426-11	CARBON	5.6K 5% 1/4W
Q602	8-729-184-53	TRANSISTOR 2SC1845-EA		R508	1-249-437-11	CARBON	47K 5% 1/4W
Q603	8-729-900-80	TRANSISTOR DTC114ES		R509	1-249-426-11	CARBON	5.6K 5% 1/4W
Q604	8-729-900-61	TRANSISTOR DTA114ES		R601	1-249-417-11	CARBON	1K 5% 1/4W
Q651	8-729-141-26	TRANSISTOR 2SC3622A-LK		R602	1-249-417-11	CARBON	1K 5% 1/4W
Q652	8-729-184-53	TRANSISTOR 2SC1845-EA		R603	1-249-417-11	CARBON	1K 5% 1/4W
Q801	8-729-900-61	TRANSISTOR DTA114ES		R604	1-249-438-11	CARBON	56K 5% 1/4W
< RESISTOR >							
R301	1-249-441-11	CARBON	220 5% 1/4W	R605	1-249-409-11	CARBON	220 5% 1/4W
R302	1-249-441-11	CARBON	3.3K 5% 1/4W	R606	1-249-423-11	CARBON	3.3K 5% 1/4W
R303	1-249-441-11	CARBON	56K 5% 1/4W	R607	1-249-438-11	CARBON	56K 5% 1/4W
R304	1-249-441-11	CARBON	100 5% 1/4W	R608	1-247-700-11	CARBON	100 5% 1/4W
R305	1-249-441-11	CARBON	2.2K 5% 1/2W	R609	1-247-756-11	CARBON	2.2K 5% 1/2W
R306	1-249-441-11	CARBON	2.2K 5% 1/2W	R610	1-247-756-11	CARBON	2.2K 5% 1/2W
R307	1-249-417-11	CARBON	1K 5% 1/2W	R611	1-247-752-11	CARBON	1K 5% 1/2W
R308	1-249-417-11	CARBON	1K 5% 1/2W	R612	1-247-752-11	CARBON	1K 5% 1/2W
R309	1-249-429-11	CARBON	100 5% 1/4W	R613	1-247-700-11	CARBON	100 5% 1/4W
R310	1-249-429-11	CARBON	1K 5% 1/4W	R614	1-249-417-11	CARBON	1K 5% 1/4W

MAIN **POWER** **RF** **TRANSFORMER A** **TRANSFORMER B** **TRANSFORMER C** **LED**

POWER	RF	TRANSFORMER A	TRANSFORMER B	TRANSFORMER C	LED
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C140	1-162-294-31	CERAMIC	0.001uF 10% 50V			< CONNECTOR >	
C141	1-164-027-11	CERAMIC	22PF 5% 50V			CNP101 * 1-564-506-11 PLUG, CONNECTOR 3P	
C142	1-164-056-11	CERAMIC	27PF 5% 50V			CNP102 * 1-564-506-11 PLUG, CONNECTOR 3P	
C143	1-164-035-11	CERAMIC	47PF 5% 50V			CNP901 * 1-564-321-00 PIN, CONNECTOR 2P	
C144	1-161-379-00	CERAMIC	0.01uF 20% 25V			CNP902 * 1-564-321-00 PIN, CONNECTOR 2P	
C145	1-161-494-00	CERAMIC	0.022uF 25V			CNP903A* 1-564-321-00 PIN, CONNECTOR 2P	
C146	1-161-494-00	CERAMIC	0.022uF 25V			CNP903B* 1-569-501-11 PIN, CONNECTOR 6P	
C147	1-161-494-00	CERAMIC	0.022uF 25V			CNP904 * 1-569-499-11 PIN, CONNECTOR 3P	
C148	1-161-494-00	CERAMIC	0.022uF 25V				
C149	1-162-294-31	CERAMIC	0.001uF 10% 50V				
C150	1-162-294-31	CERAMIC	0.001uF 10% 50V			CNS901 1-569-490-11 SOCKET, CONNECTOR 3P	
C151	1-161-494-00	CERAMIC	0.022uF 25V			CNS902 1-569-492-11 SOCKET, CONNECTOR 6P	
C152	1-124-443-00	ELECT	100uF 20% 10V			CNS904 * 1-561-651-00 SOCKET, CONNECTOR 7P	
C153	1-126-157-11	ELECT	10uF 20% 16V				
C154	1-161-494-00	CERAMIC	0.022uF 25V				
C155	1-130-483-00	MYLAR	0.01uF 5% 50V			< TRIMMER >	
C156	1-162-294-31	CERAMIC	0.001uF 10% 50V			CT101 1-141-298-11 CAP, TRIMMER	
C157	1-124-480-11	ELECT	470uF 20% 25V			CT102 1-141-298-11 CAP, TRIMMER	
C158	1-161-494-00	CERAMIC	0.022uF 25V			CT103 1-141-298-11 CAP, TRIMMER	
C159	1-126-301-11	ELECT	1uF 20% 50V			CT104 1-141-298-11 CAP, TRIMMER	
C160	1-126-157-11	ELECT	10uF 20% 16V				
C161	1-126-157-11	ELECT	10uF 20% 16V			< DIODE >	
C162	1-126-157-11	ELECT	10uF 20% 16V		D101	8-719-949-57 DIODE 1T32-4	
C163	1-126-157-11	ELECT	10uF 20% 16V		D102	8-719-949-57 DIODE 1T32-4	
C164	1-161-494-00	CERAMIC	0.022uF 25V		D103	8-719-949-57 DIODE 1T32-4	
C165	1-161-494-00	CERAMIC	0.022uF 25V		D901	8-719-200-02 DIODE 10E2	
C166	1-161-379-00	CERAMIC	0.01uF 20% 25V		D902	8-719-200-02 DIODE 10E2	
C901	△ 1-161-744-00	CERAMIC	0.01uF 400V		D903	8-719-200-02 DIODE 10E2	
C902	1-130-483-00	MYLAR	0.01uF 5% 50V		D904	8-719-200-02 DIODE 10E2	
C903	1-130-483-00	MYLAR	0.01uF 5% 50V		D905	8-719-200-02 DIODE 10E2	
C904	1-124-563-11	ELECT	2200uF 20% 25V		D906	8-719-200-02 DIODE 10E2	
C905	1-130-483-00	MYLAR	0.01uF 5% 50V		D907	8-719-200-02 DIODE 10E2	
C906	1-124-477-11	ELECT	47uF 20% 25V		D908	8-719-200-02 DIODE 10E2	
C907	1-164-095-11	CERAMIC	0.01uF 10% 16V		D909	8-719-912-20 DIODE 1SS120	
C908	1-126-157-11	ELECT	10uF 20% 16V		D910	8-719-312-09 DIODE RBA-402	
C909	1-126-157-11	ELECT	10uF 20% 16V		D911	8-719-301-39 LED SEL2210S-D (POWER)	
C910	1-164-095-11	CERAMIC	0.01uF 10% 16V				
C911	1-130-483-00	MYLAR	0.01uF 5% 50V			< IC >	
C912	1-130-483-00	MYLAR	0.01uF 5% 50V		IC101	8-759-107-67 IC uPC1651G	
C924	1-130-483-00	MYLAR	0.01uF 5% 50V		IC102	8-759-801-81 IC LA1265	
C925	1-130-483-00	MYLAR	0.01uF 5% 50V		IC103	8-759-916-12 IC SN74HC00N	
C928	1-164-095-11	CERAMIC	0.01uF 10% 16V		IC104	8-759-107-67 IC uPC1651G	
C929	1-164-095-11	CERAMIC	0.01uF 10% 16V		IC105	8-752-031-84 IC CXA1125P	
C931	1-161-379-00	CERAMIC	0.01uF 20% 25V		IC106	8-759-209-50 IC TA7782N	
					IC107	8-759-917-18 IC SN74HC04N	
					IC108	8-759-208-06 IC TC4051BPHB	
					IC109	8-759-604-29 IC M5F7805L	
					IC110	8-759-982-21 IC RC78L05A	
					IC901	8-759-604-30 IC M5F7808L	
					IC902	8-759-820-84 IC L78MR05	

Note:
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

POWER **RF** **TRANSFORMER A** **TRANSFORMER B** **TRANSFORMER C** **LED**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark					
< COIL >												
L101	1-410-324-11	INDUCTOR	4.7uH	R129	1-247-903-00	CARBON	1M 5% 1/4W					
L102	1-410-324-11	INDUCTOR	4.7uH	R130	1-249-411-11	CARBON	330 5% 1/4W					
L103	1-460-115-11	COIL (WITH CORE)		R131	1-249-421-11	CARBON	2.2K 5% 1/4W					
L104	1-460-115-11	COIL (WITH CORE)		R132	1-249-409-11	CARBON	220 5% 1/4W					
L105	1-460-116-11	COIL (WITH CORE)		R133	1-249-433-11	CARBON	22K 5% 1/4W					
L106	1-410-324-11	INDUCTOR	4.7uH	R134	1-249-433-11	CARBON	22K 5% 1/4W					
L107	1-410-324-11	INDUCTOR	4.7uH	R135	1-249-432-11	CARBON	18K 5% 1/4W					
L108	1-410-513-11	INDUCTOR	22uH	R136	1-249-433-11	CARBON	22K 5% 1/4W					
L109	1-410-324-11	INDUCTOR	4.7uH	R137	1-249-441-11	CARBON	100K 5% 1/4W					
L110	1-410-517-11	INDUCTOR	47uH	R138	1-249-441-11	CARBON	100K 5% 1/4W					
L111	1-410-324-11	INDUCTOR	4.7uH	R139	1-249-441-11	CARBON	100K 5% 1/4W					
< TRANSISTOR >												
Q101	8-729-230-45	TRANSISTOR 2SC2458-YGR		R140	1-249-429-11	CARBON	10K 5% 1/4W					
Q102	8-729-900-80	TRANSISTOR DTC114ES		R141	1-249-429-11	CARBON	10K 5% 1/4W					
Q103	8-729-900-80	TRANSISTOR DTC114ES		R142	1-249-417-11	CARBON	1K 5% 1/4W					
Q901	8-729-900-80	TRANSISTOR DTC114ES		R143	1-249-429-11	CARBON	10K 5% 1/4W					
< RESISTOR >												
R1	1-202-725-00	SOLID	3.3M	10% 1/2W	R144	1-249-417-11	CARBON	1K 5% 1/4W				
R101	1-249-393-11	CARBON	10	5% 1/4W	R145	1-249-401-11	CARBON	47 5% 1/4W				
R102	1-249-393-11	CARBON	10	5% 1/4W	R146	1-249-393-11	CARBON	10 5% 1/4W				
R103	1-249-405-11	CARBON	100	5% 1/4W	R901	1-249-401-11	CARBON	47 5% 1/4W				
R104	1-249-429-11	CARBON	10K	5% 1/4W	R902	1-249-411-11	CARBON	330 5% 1/4W				
R105	1-247-874-11	CARBON	62K	5% 1/4W	R903	▲ 1-212-934-00	FUSIBLE	1 5% 1/2W F				
R106	1-249-401-11	CARBON	47	5% 1/4W	R904	▲ 1-212-934-00	FUSIBLE	1 5% 1/2W F				
R107	1-247-903-00	CARBON	1M	5% 1/4W	< ENCAPSULATED COMPONENT >							
R108	1-249-405-11	CARBON	100	5% 1/4W	RF101	1-236-997-11	ENCAPSULATED COMPONENT					
R109	1-249-389-11	CARBON	4.7	5% 1/4W	RF102	1-236-995-11	ENCAPSULATED COMPONENT					
R110	1-249-441-11	CARBON	100K	5% 1/4W	< VARIABLE RESISTOR >							
R111	1-249-437-11	CARBON	47K	5% 1/4W	RV101	1-238-016-11	RES. ADJ. CARBON 10K (CONTROL VOLTAGE)					
R112	1-249-441-11	CARBON	100K	5% 1/4W	RV102	1-238-016-11	RES. ADJ. CARBON 10K (CONTROL VOLTAGE)					
R113	1-249-401-11	CARBON	47	5% 1/4W	RV103	1-238-016-11	RES. ADJ. CARBON 10K (CONTROL VOLTAGE)					
R114	1-249-389-11	CARBON	4.7	5% 1/4W	< RELAY >							
R115	1-249-401-11	CARBON	47	5% 1/4W	RY901	1-515-701-11	RELAY					
R116	1-249-394-11	CARBON	12	5% 1/6W	< TRANSFORMER >							
R117	1-249-410-11	CARBON	270	5% 1/4W	T1	▲ 1-450-320-11	TRANSFORMER, POWER					
R118	1-249-441-11	CARBON	100K	5% 1/4W	T101	1-404-948-11	TRANSFORMER, DISCRIMINATOR					
R119	1-249-421-11	CARBON	2.2K	5% 1/4W	< CONNECTOR >							
R120	1-247-887-00	CARBON	220K	5% 1/4W	TP1	* 1-564-505-11	PLUG, CONNECTOR 2P					
R121	1-249-415-11	CARBON	680	5% 1/4W	TP2	* 1-564-505-11	PLUG, CONNECTOR 2P					
R122	1-249-413-11	CARBON	470	5% 1/4W	TP3	* 1-564-505-11	PLUG, CONNECTOR 2P					
R123	1-249-417-11	CARBON	1K	5% 1/4W	TP4	* 1-564-505-11	PLUG, CONNECTOR 2P					
R124	1-249-411-11	CARBON	330	5% 1/4W	TP5	* 1-564-505-11	PLUG, CONNECTOR 2P					
R125	1-249-429-11	CARBON	10K	5% 1/4W								
R126	1-249-429-11	CARBON	10K	5% 1/4W								
R127	1-249-393-11	CARBON	10	5% 1/4W								
R128	1-249-397-11	CARBON	22	5% 1/4W								

Note: The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.	Note: Les composants identifiés par une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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Ref. No.	Part No.	Description	Remark
<hr/>			
MISCELLANEOUS			

22	△ 1-575-975-11	CORD, POWER	
F901	△ 1-532-746-11	FUSE, GLASS TUBE	
T2	△ 1-450-321-11	TRANSFORMER, POWER	
<hr/>			

ACCESSORY & PACKING MATERIAL

- * 3-704-343-01 SHEET (STANDARD), PROTECTION
- * 4-943-055-01 CUSHION

HARDWARE LIST

# 1	7-682-547-09	SCREW +BVTT 3X6 (S)
# 2	7-682-548-04	SCREW +BVTT 3X8 (S)
# 3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
# 4	7-685-870-01	SCREW +BVTT 3X5 (S)
# 5	7-682-550-04	SCREW +BVTT 4X6 (S)
# 6	7-682-550-04	SCREW +BVTT 3X12 (S)
# 7	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S

Note:

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

Note:

Les composants identifiés par une marque △ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

9-956-184-11

Sony Corporation
Audio Group

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TA-DL100

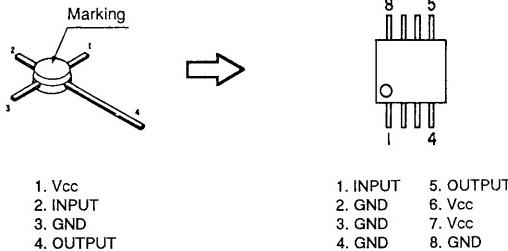
**SONY®
SERVICE MANUAL**

*US Model
Canadian Model*

SUPPLEMENT-1

File this Supplement with the Service Manual.

IC101, 104 : μPC1651G → μPC1652G



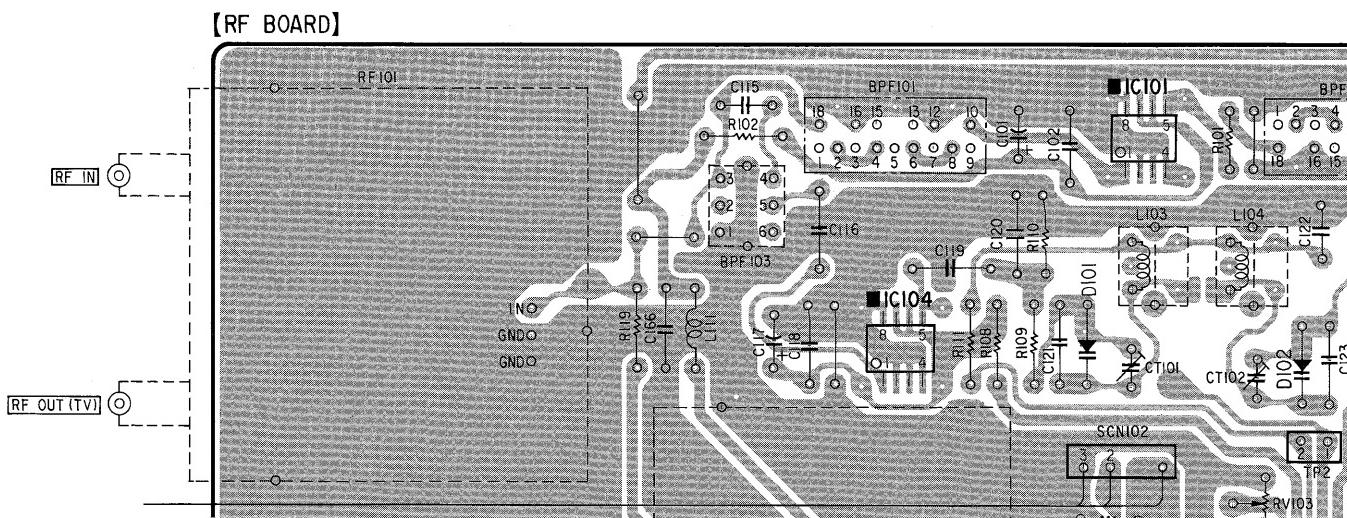
● **CHANGED PARTS LIST** (Service Manual See page 35)

Ref. No.	Parts No.	Description	Remark
IC101	8-759-154-38	IC μPC1652G	
IC104	8-759-154-38	IC μPC1652G	

● **PRINTED WIRING BOARDS** (Service Manual See page 19)

● **SCHEMATIC DIAGRAM** (Service Manual See page 25)

• PRINTED WIRING BOARDS (Service Manual See page 19)



• SCHEMATIC DIAGRAM (Service Manual See page 25)

